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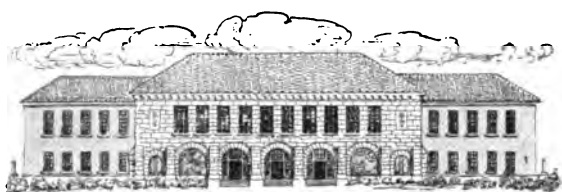
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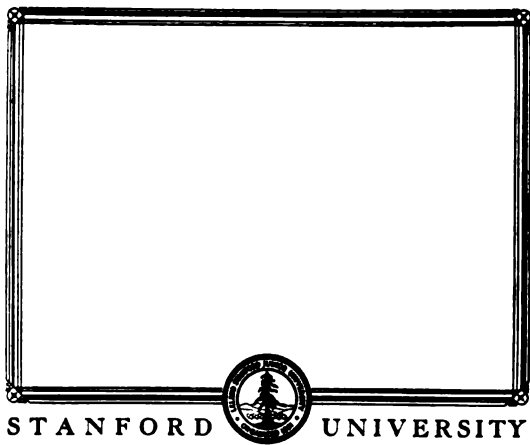
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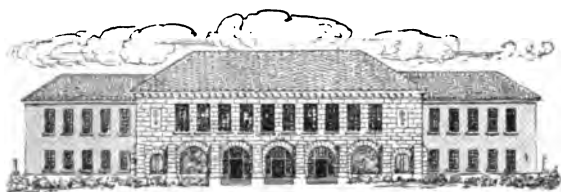
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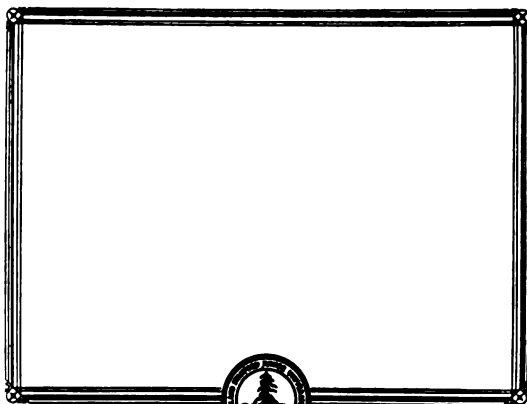
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Regents Bulletin

No. 51 October 1900

38th University Convocation

OF THE

State of New York, 25-27 June 1900

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ALBANY

UNIVERSITY OF THE STATE OF NEW YORK

1900

University of the State of New York

REGENTS

With years of election

1874 ANSON JUDD UPSON L.H.D. D.D. LL.D.

Chancellor, Glens Falls

1892 WILLIAM CROSWELL DOANE D.D. LL.D.

Vice-Chancellor, Albany

1873	MARTIN I. TOWNSEND	M.A. LL.D.	-	-	-	Troy
1877	CHAUNCEY M. DEPEW	LL.D.	-	-	-	New York
1877	CHARLES E. FITCH	LL.B. M.A. L.H.D.	-	-	-	Rochester
1877	ORRIS H. WARREN	D.D.	-	-	-	Syracuse
1878	WHITELAW REID	LL.D.	-	-	-	New York
1881	WILLIAM H. WATSON	M.A. M.D.	-	-	-	Utica
1881	HENRY E. TURNER	-	-	-	-	Lowville
1883	ST CLAIR MCKELWAY	L.H.D. LL.D. D.C.L.	-	-	-	Brooklyn
1885	HAMILTON HARRIS	Ph.D. LL.D.	-	-	-	Albany
1885	DANIEL BEACH	Ph.D. LL.D.	-	-	-	Watkins
1888	CARROLL E. SMITH	LL.D.	-	-	-	Syracuse
1890	PLINY T. SEXTON	LL.D.	-	-	-	Palmyra
1890	T. GUILFORD SMITH	M.A. C.E. LL.D.	-	-	-	Buffalo
1893	LEWIS A. STIMSON	B.A. M.D.	-	-	-	New York
1895	ALBERT VANDER VEER	Ph.D. M.D.	-	-	-	Albany
1895	CHARLES R. SKINNER	M.A. LL.D.	-	-	-	

Superintendent of Public Instruction, *ex officio*

1897	CHESTER S. LORD	M.A. LL.D.	-	-	-	Brooklyn
1897	TIMOTHY L. WOODRUFF	M.A. Lieutenant-Governor,	-	-	-	<i>ex officio</i>
1899	THEODORE ROOSEVELT	B.A. LL.D. Governor,	-	-	-	<i>ex officio</i>
1899	JOHN T. McDONOUGH	LL.B. LL.D. Secretary of State,	-	-	-	<i>ex officio</i>
1900	THOMAS A. HENDRICK	M.A. LL.D.	-	-	-	Rochester

SECRETARY

Elected by regents

1900 JAMES RUSSELL PARSONS JR M.A.

DIRECTORS OF DEPARTMENTS

1888	MELVIL DEWEY	M.A. <i>State library and Home education</i>
1890	JAMES RUSSELL PARSONS JR	M.A. <i>Administrative, College and High school depts</i>
1890	FREDERICK J. H. MERRILL	Ph.D. <i>State museum</i>

Regents Bulletin

No. 51 October 1900

38th University Convocation

OF THE

State of New York, 25-27 June 1900

SUMMARY OF SESSIONS

1st session, Monday, 25 June 8 p. m.

Convocation called to order by Chanc. ANSON JUDD UPSON.

Announcements.

Prayer by Rev. WILLIAM F. WHITAKER, Albany.

Chancellor's annual address.

A plea for a new state museum and library building.

Regent T. GUILFORD SMITH.

Regent WILLIAM H. WATSON.

Learning and men: address.

Regent ST CLAIR MCKELWAY.

University reception in the library.

2d session, Tuesday, 26 June 9 a. m.

Chanc. UPSON presiding.

Industrial education in Germany.

Prof. J. C. MONAGHAN, University of Wisconsin.

Discussion.

ISAAC H. STOUT, department of public instruction.

Prof. CHARLES DE GARMO, Cornell university.

Prof. J. C. MONAGHAN.

Pres. BOOTH C. DAVIS, Alfred university.

Manual training in secondary schools.

In general, and specialized for boys.

Prof. CHARLES R. RICHARDS, Teachers college, New York.

In general, and specialized for girls.

Mrs ALICE P. NORTON, Brookline (Mass.) high school.

Discussion.

Prin. CHARLES D. LARKINS, Brooklyn manual training high school.

Prin. E. C. COLBY, Rochester Atheneum and mechanics institute.

Prin. VINTON S. PAESSLER, Barlow school of industrial arts, Binghamton.

Adjourned 12.30 p. m.

3d session, Tuesday, 26 June 3 p. m.

Libraries as a source of inspiration.**Public libraries.**

FREDERICK M. CRUNDEN, librarian St Louis (Mo.) public library.

WILLIAM E. FOSTER, librarian Providence (R. I.) public library.

School libraries.

SHERMAN WILLIAMS, department of public instruction.

Prin. A. W. ABRAMS, Ilion high school.

University libraries.

Dr JAMES H. CANFIELD, Columbia university library.

Public libraries.

MELVIL DEWEY, director of New York state library.

Necrology.

C. W. BARDEEN, editor *School bulletin*, Syracuse.

Prayer by Chanc. ANSON JUDD UPSON.

Adjourned 5.30 p. m.

4th session, Tuesday, 26 June 8 p. m.

Chanc. UPSON presiding.

American opportunities and education: annual address.

HAMILTON W. MABIE.

Reception at home of Frederick J. H. Merrill, state geologist
and director of the New York state museum, 9.15-11 p. m.

5th session, Wednesday, 27 June 9 a. m.

Report on the organization and plans of the joint college
entrance board for the middle states and Maryland.

Dean NICHOLAS MURRAY BUTLER, Columbia university.

Discussion.

FRANK H. WOOD, department of public instruction.

Pres. A. CAMERON MACKENZIE, Elmira college.

Prin. O. D. ROBINSON, Albany high school.

Prin. JOSEPH E. KING, Fort Edward collegiate institute.

Prof. C. G. HERBERMANN, College of the city of New York.

Prin. THOMAS O. BAKER, Yonkers high school.

Dean NICHOLAS MURRAY BUTLER, Columbia university.

High school defects from the college standpoint.

Pres. THOMAS HUNTER, Normal college of the city of New
York.

Pres. GEORGE E. MERRILL, Colgate university.

Chanc. ANSON JUDD UPSON.

College defects from the high school standpoint.

Prin. CHARLES W. EVANS, Elmira free academy.

Sup't DARWIN L. BARDWELL, Binghamton.

Systematic individual instruction.

In college and university.

Prof. H. DE F. SMITH, Bowdoin college.

In elementary and secondary school.

Sup't JOHN KENNEDY, Batavia.

In the professional school (paper not read).

Pres. WILLIAM J. MILNE, State normal college.

What secondary subjects are most valuable

For a business life.

Prin. THOMAS O. BAKER, Yonkers high school.

Chanc. ANSON JUDD UPSON.

Sup't S. R. BROWN, East Syracuse.

Prin. O. H. BURRITT, Franklin academy, Malone (paper not read).

For a professional life (paper not read).

Dr J. H. BEAL, Scio college, O.

Closing remarks.

Chanc. ANSON JUDD UPSON.

Adjourned 12.30 p. m.

APPOINTMENTS

Convocation council. By appointment of Prin. Myron T. Scudder to succeed Bro. Justin, and of Prin. Floyd J. Bartlett to fill the unexpired term of Prin. W. C. Joslin, who has removed from the state, the council for 1901 is:

1901 Chanc. James R. Day S.T.D. LL.D. Syracuse university.

1902 Sup't John Kennedy, Batavia.

1903 Prin. Thomas O. Baker, Yonkers high school.

1904 Prin. Floyd J. Bartlett, Auburn high school.

1905 Prin. Myron T. Scudder, New Paltz normal school.

College council. By appointment of Pres. George E. Merrill to succeed Pres. Boothe C. Davis, the council for the following year is:

1901 Pres. J. G. Schurmann LL.D. Cornell university.

1902 Pres. J. M. Taylor D.D. LL.D. Vassar college.

1903 Dean Nicholas Murray Butler Ph.D. Columbia university.

1904 Pres. R. E. Jones B.A. S.T.D. Hobart college.

1905 Pres. George E. Merrill D. D. Colgate university.

Academic council. By appointment of Prin. James Winne to succeed Prin. Thomas O. Baker, the council for the following year is:

1901 Prin. D. C. Farr, Glens Falls academy.

- 1902 Prin. Byron G. Clapp, Fulton high school.
1903 Prin. O. D. Robinson, Albany high school.
1904 Prin. J. F. Glavin, St John's academy, Rensselaer.
1905 Prin. James Winne, Poughkeepsie high school.

Library council. By appointment of James H. Canfield, to succeed Charles A. Nelson, the council for 1901 is:

- 1901 J. N. Larned, ex-sup't Buffalo library.
1902 J. S. Billings M.D. director New York public library.
1903 John E. Brandegee, trustee Utica public library.
1904 M. Emogene Hazeltine, librarian James Prendergast library, Jamestown.
1905 James H. Canfield LL.D. librarian Columbia university.

ADDRESSES, PAPERS AND DISCUSSIONS

Monday evening, 25 June

OPENING PRAYER

BY REV. WILLIAM F. WHITAKER, ALBANY

Almighty God, our Heavenly Father, we desire to commence, to continue and to conclude our deliberations in the praise of Thy existence and in glad recognition of Thy power and Thy wisdom. To Thee all hearts are open, all desires known. Grant that our desires may more perfectly respond to the highest demands of our great Creator. We thank Thee that the lines are fallen for us in such pleasant places, and that we have so goodly a heritage. We rejoice, O Lord, in the breadth of our commonwealth, in the treasures of its soil, in the founding of its schools and in the dignity of its teachers. Enable this University through the discussions and decisions of this convocation to further the highest interests of the broadest education within our borders. May Thy favor rest on the officers and members of this University, on the teachers in our schools, academies and colleges, on the governor of our commonwealth and on the chief executive of these United States. Guide our nation in its new position and the

wider responsibilities given to it in our time, O God, and even in the clash of arms and the woes of war may our eyes behold the coming of Thy kingdom, which is righteousness and holiness; and to Thy great name shall be our praise now and evermore. Amen.

ANNUAL ADDRESS

BY CHANCELLOR ANSON JUDD UPSON L.H.D. D.D. LL.D.

Ladies and gentlemen: The University of the State of New York welcomes you to her 38th convocation. We are still here. We have not been abolished. We have not been amended out of existence. We are still here. From the oldest to the youngest we are still here. There are those among us who have passed our seventh decade of years, and we are yet all here. We can not say with Sir Christopher Wren, "If you seek our monument, look around you." We can not say, "*Si quaeris monumentum, circumspice*". For we have not died; we are not dead: no monument has yet been raised to our memory.

The University of the State of New York, with all its powers, is still extant. For 38 years, since 1862, this convocation has been held annually in this capitol. Since 1784, for one hundred and sixteen years, the University has blessed the state, and is still here to welcome friends of education. We are here today representing universities and colleges of liberal arts, 34, with 5212 men and 3824 women as college students. We are still here representing professional and technical schools, 76—schools in theology, in law, in education, in medicine, in dentistry, in pharmacy, in veterinary medicine, in ophthalmology, in engineering and technology, in art and music, with 13,985 men and 6154 women as students. The University of the State of New York still represents academies incorporated and senior academic schools, middle, junior and special, 139 in number, with 5682 men and 8174 women as students. Ladies and gentlemen, we still supervise 559 high schools, with 25,362 men and 34,270 women as students. We still supervise 183 organizations for home educa-

tion—institutes, libraries and museums. Affiliated with the University under its encouraging supervision are libraries and centers, study clubs and associations, business schools and other schools, in all 523. The University of the State of New York is thus still extant, with 1514 schools of all sorts, under its supervision, which schools teach 101,630 students, male and female.

Representing all these institutions, high and low, we welcome you. But the present condition of the University, as to its extent and completeness, has not been reached suddenly. Like most good things in this world, the ripening process has to be gone through with. In 1812, the office of state superintendent of common schools was created. The Secretary of State performed the duties of this office from 1821 to 1854. Since 1854, the department of public instruction has been independent of the board of regents. Since 1854, for nearly half a century, there have been conflicting efforts within this dual system to effect a consolidation. In the constitutional convention of 1867–68, an article was reported by the committee on education to create a new board of supervisors to have “general supervision of all the institutions of learning in this state.” After important amendments by Judge Comstock and George William Curtis, the attempt to unify the educational system by depriving the regents of their authority was rejected. In the legislature, the Flagg bill, so called, of 1870 proposed a department of education with a state superintendent and required that the regents report annually to the new department. This bill was passed and reached Gov. Hoffman on the last day of the session of the legislature, but did not receive his signature. In 1874, in Gov. Dix’s administration, another bill reorganizing the board of regents, and vesting them with the powers of the superintendent of public instruction, passed the senate, but failed to pass the assembly. The constitutional convention of 1894 discussed at length the duality of our educational system; but the committee on education was unable to agree on any plan of unification. The convention however made the University of the State a constitutional body, thus insuring its existence for at least 20 years.

It is needless for me to review the history of the University for the past two years. The events are familiar to us all. The introduction and defeat of Senator White's bill; the somewhat exciting discussion in our last convocation; the result—the passage of a resolution requesting the Governor to appoint an honorary commission, representing the various educational interests of the state, “which shall consider ways and means of unifying the present educational systems and give such assistance as the statutory revision commission may desire in the preparation of a bill to be submitted to the legislature at the opening of the next session”; the report of this commission, giving \$10,000 to a new chancellor and \$5000 each to six heads of departments—all this is familiar. The excitement of educators throughout the state, frequent meetings of the regents and of committees, discussions in the legislature, *all finally leading to a peaceful cooperation between the two departments*. So that, in the words of Regent McKelway in his influential journal, “we have peace. The substance of unification has thus been reached without the form of it; and neither the Governor nor the Legislature appears to feel that either need longer be vexed with the matter at this session of the legislature, if ever afterward”. The incident seems to have been closed with satisfaction to both sides and with benefit to education, and to the state. And so the University is *still here* to welcome you to its 38th convocation.

But we have a new secretary. After eleven years of faithful service, Melvil Dewey has resigned his position as secretary of the board, and the regents have appointed as his successor James Russell Parsons jr. On the occasion of his resignation, the board adopted the resolutions introduced by a committee of which Whitelaw Reid was the chairman. In the words of these resolutions, the board recognized in Mr Dewey “an organizer of genius, an executive of great skill, an educational leader of marked originality and energy, and an officer whose administration has coincided with the largely augmented usefulness and honor of the University”. In these resolutions the board also recorded “with gratitude his zeal for the welfare of the service of the state, his devotion to the interests and good fame of the

board and his constant sympathy with the cause and institutions of higher education in the commonwealth and in the nation". They also rejoiced "to believe that his rare gifts and abilities will still be at the service of the University in a field congenial to his wishes and commensurate with his extraordinary qualities".

By the election of Mr Parsons as secretary, the board has chosen one who has been long in the service of education and who has for several years served the regents as a director of college and examination work. Permit me to say that we feel sure that in his work with us hereafter he will exhibit the same discretion, the same singleness of purpose and directness of method and the same calm and wise judgment which have characterized his efforts hitherto.

A PLEA FOR A NEW STATE MUSEUM AND LIBRARY BUILDING

BY REGENT T. GUILFORD SMITH.

I have been asked to occupy 10 minutes of your time this evening. I propose to devote one half of it to calling your attention to the important work which has been done in the past by the state museum and also by the state library and to the importance of expanding and extending their work, and to the absolute necessity, in the near future, of providing new quarters for them either in one building or in two, as may seem best. In the other 5 minutes I wish to invite your attention to the manner in which the library and the collections of the museum have been brought home to students throughout the state who are unable to visit the collections and avail themselves of the present extension. These two branches of the University work are so important and in some respects so little understood that I trust that this may lead to a farther understanding by all those interested in these subjects.

I need not recall to the memories of people in Albany or of the members of this convocation the important work done in the cause of paleontology and geology by the late Dr James Hall or

by his assistant, Dr Clarke, whom we are fortunate in having with us to continue the great work of Hall and his predecessors. The results of the various surveys made from the beginning up to the present day are most inadequately housed in the State hall and in the geological and agricultural building on State street. Thanks to the liberality of the legislature, to some extent inspired by the governor, an appropriation has been made by which the building on State street will be very much improved, and quarters obtained there for the state botanist and the state entomologist, both of whom have been most inadequately provided for in this capitol. But the building on State street will remain non-fireproof, and it probably can never be made anything else; thus the unique collections which have been gathered there, and which to some extent it would be impossible to replace, are still exposed to the dangers of fire. The collections which are housed in the State hall, where they have been used for purposes of study, are not parts of the collections on exhibition, though they are interesting reports of the surveys made in past years. You can readily see, therefore, how important it is for us seriously to consider the putting up of a state museum which will provide quarters for the proper exhibition of the geology and paleontology of the state of New York where the type specimens can be studied by visitors, not only from New York and adjoining states, but even from afar. This does not take into consideration the collections of the entomologist and the botanist, both of which ought to be displayed for purposes of study in a very different way from that in which they have been displayed before.

If we form a proper conception of the state museum and have it include the Indian relics which are now in the corridors of the capitol, the historical relics now displayed in the state library and all other objects which belong to a state museum, you can readily see that our ideas of the character of the building required for such a purpose must be very much expanded. The building in State street was never intended for anything more than geology and agriculture, when it was erected in 1855. Many of the

objects which are now in the state library were in the old state library which was erected on a part of the site of the present capitol, and it was, for a time, a source of inspiration to a very large number of citizens of this state who visited it.

The state library contains 180,000 volumes of general literature and 63,000 volumes of law books, to say nothing of duplicates, all of which should be housed differently from the way in which they are at present; and in fact it will soon become necessary to provide quarters for the annual increase which takes place in the state library and for which room has not been provided.

It seems, therefore, proper that the regents shall consider and bring to the attention of the legislature the great importance of erecting a building not only adequate in scope, design and accommodations to the needs of the present museum and present library, but adapted to the demands of a museum in the largest possible sense and capable of accommodating the future annual increase of the state library.

I am unable to say how many have visited these collections yearly in times past, but we do know that every year the number of visitors increases, and it is likely to increase still more.

The condition of things in Albany calls for a structure similar in scope and plan to the Metropolitan museum in New York, whose beginning in 14th street we can all remember, and also to the national library in Washington, the most recent of the great library buildings erected, to say nothing of the Boston public library, which is the pride not only of Boston but of the whole state. We must build something commensurate with these great buildings when the state of New York moves in this matter; and I trust that the legislature will take up and consider this subject on the broadest possible lines.

In order to bring these collections and these books to students of natural history and of general literature and of learning generally, there has been devised and carried into active operation in this state, and also in other states, the scheme of the traveling library. Of such there have been circulated in the state since

1892, 2622, doing this good work from one end of it to the other. But the traveling library idea is capable of expansion in every direction, not only by means of books, but also by photographs, prints and other objects, by which students can become more familiar with the works, the lives and the lineaments of the great men that have gone before us.

This home education department, which seems to have been properly named finally, though originally called "University extension", seems to have been evolved out of the original idea of university extension. It has, I think, taken deep root in the minds of our fellow citizens. The University pursues a great object in putting into the hands of the students of the secondary schools and others these fine means for obtaining information; and only increased appropriations are lacking in order to carry out the well considered scheme, which has been mainly brought into activity by the director of the state library, Melvil Dewey. In carrying out this work, between October 1899, and May 1900, 214 wall pictures, 9165 lantern slides and 4398 photographs have been circulated.

In closing, it is a matter of congratulation that New York state has maintained its prominence in all these matters, and that we have had, so far, the hearty sympathy of all legislatures from the very beginning of the geologic survey down to the present time in carrying out all these schemes for education in the very broadest sense of the word.

Regent William H. Watson — I desire to declare the very great interest with which I have listened to the remarks of Regent T. Guilford Smith with regard to the erection of a suitable building for the geologic treasures of this state, and to express the wish that this convocation in conjunction with the regents may hereafter give earnest attention to the subject to which he has directed our attention this evening.

LEARNING AND MEN

BY REGENT ST CLAIR MCKELWAY

My friends, I propose to talk about learning and men, the obligations of men of learning and things requiring attention at the hands of the people, and concerning which the people are entitled to consideration at the hands of men who may fairly be called learned. This is a practical work. It is not a work of mere advocacy of theories.

The orator is a past product and a receding figure. The talker makes himself spokesman and interpreter of those whose homage, wonder and admiration the orator aroused. Those who think with men and women are replacing those who thought beyond them, before them and above them. The people are coming up. The apostles of causes are becoming fewer since the masses have taken charge of their own opinions and are voicing their own demands. The flaming evangels of principles encounter no stimulating persecutions, and face or flee no glorifying martyrdoms. Every project has an unopposed hearing, whether cynical or sympathetic. The doubt of being permitted to speak is exchanged for the simple work of hiring a hall. Apprehension of being mobbed yields to solicitude about ability to pay the rent. The function of the oracle is not so apparent as the fact of the fad or force of organization. Those who went up and down the land, often seeking in vain for an opportunity to unclothe their advanced thought, and not seldom subjected to ridicule or to rebuffs for wishing to do so, now find circles, clubs, institutes and leagues ready formed to listen to them first and to controvert them afterward. The center of speculation, agitation and progress has shifted from the elect to the many. The hierarchy of thought is now no more. The multitude are prophets, priests and kings unto themselves.

The change in the world that now is from the world as it was, when we sought to open the oyster of life with the jackknife of theory, needs to be told not merely to the reasoned and the seasoned here but to those on the threshold of that experience which Artemus Ward described as playing leapfrog with exist-

ence. The tale will not deter you. If it should, it were better not told. The tale should not depress you, for if it did the stuff of which manhood is made would be lacking in you. This then is the truth to be hazarded.

Old leadership and the new

Leadership in the old sense is disappearing among the lost arts. Leadership of the new sort is crowding leaders of the lapsing sort to the wall. There are hardly any more premierships in pulpit or press, at the bar, in medicine or in learning. Those to whom such lead is accorded hold it by credentials two generations old, have been forced strenuously to defend it for a generation, and recognize that the concession of it today is due rather to consideration of its age than to admission of its excellence. The new journalist, the new preacher, the new doctor, the new teacher and the new financier are marked products of modern evolution. As those who believe in the progress of humanity, we must assume that the old are not better than the new; but I for one shall at least leave the vindication of the new to the new, and shall seek to palliate some of the faults and to defend some of the methods of the old to you, before my clients and their poor attorney are quite removed from the stage.

The old class of brain workers may, broadly speaking, be called the unhelped. The new may be called the helped. The first virtually did everything for themselves. For the second is done about all that can be done. Many belong in part to one class, and in part to the other. Knowledge or observations bring to anyone's mind representatives of either type, as well as those who, to a degree, represent both. Statistics do not exist to show the proportion of these types. Nor would statistics be satisfactory, for they settle few facts and breed much contention when the qualities of life are under comparative examination. But we all realize that in times past there were many more of the unhelped or of the self-helped than of the assisted who attained to eminence in affairs. Perusal of any encyclopedia or biography reveals pictures without number of the log cabins or of the farm houses

in which the great were born. The mansions or palaces in which they first saw the light are not there. One can, however, safely infer from many circumstances that the percentage of the helped is larger now than in the recent past, and will be larger in each decade. The average of means is increasing. The ambition of parents to do better by their children than their progenitors could do by them is effected. Education was aforetime reached over obstacles. The whole plan of life now comprehends the removal of those obstacles. The aids to learning, its avenues and opportunities are bountifully provided by private means and public grants, by great endowments or liberal subsidies. Many of the difficulties and sacrifices which made the acquisition of knowledge heroic and affecting have been eradicated. Many of the hardships which formed the pathos and poetry of great careers are gone. The sacrifices which they imposed on love, the obligations which they laid on labor, the appeal which they made to resolution and to fortitude, the incentive which they were to ambition are among the diminishing assets in the history of human endeavor.

And this is true not merely because the average means of families have increased, not merely because the comparative poverty of today would have been comparative comfort in those times which tried men's souls, but because the facilities of learning have been multiplied and have, roughly speaking, broken down the economic lines of life. "The twin jailors of the aspiring heart, low birth and iron fortune", are neither jailors nor twins now. To low birth and to high the schools are as open as the courts, and in those schools poverty is apt to find itself at a kind of social premium. The repetition of the childhood of Abraham Lincoln, Andrew Jackson or of Henry Clay would be impossible to the child of today. He would not find books rare. They are everywhere available for little more than the asking. He would not have to walk miles to an occasional school, taught or mistaught by some foundling of education or by some pretender to learning, in a building too bad for cattle but good enough for children. The schoolhouse is to be seen in every hamlet. The teacher or

teachers must have the state's certificate of competency and knowledge. He would not have to measure his period of schooling by his parent's pocket or by his own ability to settle for it by labor on the road. He could find the schooling free. If he coveted a college course, he would find in many states—and the growing belief is that he should be able to find in every state—that college course as open to him and as free from charges as his primary or fitting school is made. The assertion can not be maintained that there are not still marked disparities of fortune among students, or among those who thirst for knowledge. There are, but they are not such as to bar any one from learning. They only qualify the conditions of men or women or of boys and girls in the attainment of an education within the reach of all by the self-preservative sense of the state or local community. The preventive agency of privation in education is abolished or on its way to abolition. The stimulative agency of privation on educational character must soon be retired from the category of calculable forces. Nor can it be said of general state schooling in America as Dr Johnson said of general church schooling in Scotland, that "Everyone has a mouthful and nobody a full meal." Here one may drink deep or taste not, or taste a little the Pierian spring, as he pleases, but a full and equal supply of the precious water of knowledge is his, if he will take it, and his for even less than the mere coin of courteous thanks or civil asking. It is his law-made birthright.

Effect of great questions on character

Traversing the circle back to the primary proposition, that the initiative of learning and of intellectual stimulus is with the people of today, we can well inquire: How do the products in manhood and womanhood under the new method compare with those under the old? What is the gain or loss in individual cases of the substitution of the competition of students with one another, for the conquest by the young of the hindrances that aforetime stood in their way? "How really great", exclaimed a Bostonian cultivated beyond his intellect, "how really great Abraham Lincoln would have been had he been born of the Lincolns of Massa-

chusetts, and educated at Harvard." Were that sentence closed with an exclamation point it would be suspected of satire, or referred to delusion. If it close with an interrogation point, it becomes an interesting question with a retroactive import. The idea in it goes to the root of the consideration of the function of great issues on national character, of the influence of bare, spare and hard conditions on personal development, and of the tendencies of crises or of emergencies in the life of principles to hunt for standard-bearers among men.

John Wesley defined and denounced American slavery as the sum of all villainies. Yet it had its compensations. Its pastoral and patriarchal influence on society gave to us the Virginia leisure class from among whom Washington, Jefferson, Madison and Monroe were picked. That influence bore them and trained them. They were valuable men in a planter-led rebellion against royal assumption and arrogant paternalism. Yet in another part of the colonies detestation of slavery was part of the faith and part of the force of John Adams, of Sam Adams, of John Hancock, of Joseph Warren and of James Otis as well as of Benjamin Franklin and Dr Witherspoon and Thomas Paine. They were revolutionary factors. He would be reckless who contended that one of these groups was less necessary or more efficient than the other in the vindication of the revolution, or that the lettered class to whom both groups under diversity of educational influences belonged was to be ranked above the Israel Putnams, Anthony Waynes, Daniel Morgans, Francis Marions, Ethan Allens, John Starks, Nathaniel Greenes and Nathan Hales who went up from between the plow handles to an immortality of fame through fire. Between the children of culture and the sons of thunder who rebuilt the Union on foundations of liberty, the parallel could be as luminously run. Sumner and Seward were the flowering results of consummate training in the schools of study. Lincoln and Grant were prodigious pupils in the school of life. The place of Andrew, Curtis, Storrs, Beecher, Chase, Stanton, Dayton, Fish and Phillips, and the place of Wade, Lovejoy, O. P. Morton, Curtin, Garrison, Thad Stevens, John Brown and

Horace Greeley in the liberation of man, though different, were equal. But we can not escape the conclusion that but for slavery, but for the moral valor and vigor with which hostility to it endowed them, some of them might have remained commonplace and others have wasted their gifts on economic heresies.

The provision of universal facilities for competent general learning coincides, as can be shown, with the retirement of dramatic and transforming issues from American life. Of old we had rights to demand. Now we have reforms to urge. Of old the very existence of the nation was threatened. Now the kind of money it shall issue, the method of taxation it should prefer, and the best process of picking its hired hands are under debate. There are morals in these questions. But there were miracles in the others. There were giants in those days. There are good government clubs in these days. That time was wild and terrorizing. This time is one of topical tameness. Then there were contending armies. Now there are competitive examinations. Then the lyceum was the tribunal of everlasting verities and the slaughterhouse of cruel and barbarous wrongs. Now the institute courses are busy holding inquests on dead facts, the circles are concertedly reading much which it is hard to remember and benign to forget, literary clubs are intrepidly deciding questions which still perplex statesmen, and ingenuous youth rushes confidently in where scientists and publicists fear to tread.

Day of little questions blown large

Effort to make ordinary questions do duty for extraordinary ones has been more earnest than successful. Try as we will, the service question in government has not been lifted above the clerical question in business or the kitchen or farm or stable question in home life. Labor as we may, the issue of international arbitration has not been held in academic solution. It has persistently mixed itself with such practical facts as our independence won by blood from England, with our Union preserved against the English Alabama as well as the confederate, with our frontier or our coast line outlooking on English cannon con-

verging toward us, and with our American stock sprung from the sires and remembering the swords of Bunker hill. We have arbitrated differences as they arose. The suspicion is inveterate that what farther differences may arise can as well be arbitrated by extemporized tribunals as by a hard and fast commitment to mechanical methods. Peace is preserved in as many ways as those in which love is made. To restrict the means might impair the purpose or its success. Nor can the tariff question be presented as one tremendously affected by a moral interest till one party or the other can be solidly convinced that it is. At present it divides both parties about equally.

Strong hopes were entertained that the question of a municipal party for municipal purposes would carry in it the ethical arousal which would purify politics and ally education with a public interest. The hopes have not yet been realized. More than half of the people live, work and vote outside of the cities. For them there are no municipal questions. Of those who do live in cities the ability of many to forget that they are democrats, or to cease to remember that they are republicans, or to suspend their consciousness that they are populists or prohibitionists, is slight, or does not exist. The endeavor to shift city thinking on public questions from political lines could hardly be more successful than one to shift any thinking on religious questions from denominational lines. Men are partizan in proportion to numbers and nearness. Nearness and numbers are at their highest expression in cities. Men are likewise partizan or politics is competitive in proportion to the value of the prizes in contest. In cities the value of such prizes is greatest. Moreover, in cities those interests in money, in property or in business which are directly and largely subjected to taxation are found in largest volume and value both. This enables party organization and party fealty to be maintained and enforced to a degree which independents fail to appreciate. So intensely partizan are city voters that, when the party of their faith fails them as a public instrumentality, they recur to its adversary and make of it a flail for the back of the defaulting or dissatisfying body. They may change parties

awhile, but only in a way to make their renewed recourse to partyism more significant, and such recourse has been to a political and not to a municipal partyism in the case of the very cities rated to be the most independent.

Every man has been defined to be a religious animal. Every American may be defined to be a political animal. Nor is one natural effect of our political equality borne enough in mind. That is the effect of regarding political office as a personal and public distinction carrying in it conspicuity, honor, condonation and the agreement of the masses that it does carry those pleasant qualities or consequences in it. Cultivation and philosophy correct and reduce such an appraisal of preferment, but the cultivated and the philosophical are not the masses. They rate official honors high, and he is weakly cultivated and falsely philosophical who does not understand and allow for this rating of honors by the people. Not that ours are a people who reverence and greatly respect their public servants or those set to rule over them. They do not. On the contrary, they make light of them. But their rating or berating of officials does not reduce their desire for office or their wish to become officials themselves. By a sort of paradox it increases that desire. Some of their criticisms of place-holders is part of a plan to succeed them. The relation of the destructive process to the constructive object is as plain as the aid which acrimony at times lends to ambition. Often they who decry titles covet them and envy the holders of them. Hunger for honors is rooted in the liking of the exclusive and of what warrants an implication of importance, of popularity or of influence.

Not unless you walk on the foundations will you learn the depth and strength of the facts which relate the commonplace character of current public questions to the contemporary estate of educational effort. In the east and north at least, the influence of such current questions is not apparently greatly felt. Those questions do not make our students thrill with a public impulse and do not make in them a public conscience. For that neither the questions nor the schools can be hastily blamed.

When political parties are dodging issues, or are occupying themselves with minor issues, the other issues which are seeking parties to voice them do not come to schools. They do not wait for schools to come to them. They just move among the people. Among the people are found men learned and men unlearned who are taking positions on new or renewed questions, but colleges or the schools themselves do not seem to affect or to be affected by them yet. We can not affirm what new great movement will next vitally stir our people, but the impulse of independence which vivified the close of the 18th century, the impulse to western settlement which marked the passage of the 18th into the 19th century, lasting beyond half the years of the latter, the moral political influence which issued from and vindicated the civil strife, and which made nationality paramount and freedom universal and the issue of expansion, on the one hand, or of anti-imperialism, on the other, have no equal in the appeal which they address to faith and to force in any of the recognized and contending movements of the time. Neither, so far, have such movements brought into view the peers of the masterful figures of the old or of the recent past.

General uplift of the people

Let us admit, however, that, if the men were greater than our spokesmen are now, the people as a whole are greater now than they were then. Among the blind the one-eyed man is king. Among the small, the man of 6 feet is the colossus which Dumas, the elder, always pictures him to be, to the amusement of his English readers. The America which produced Washington and Franklin imported negroes for slaves. The America which developed Lincoln and Grant was ready to emasculate the constitution, if only those who bred slaves for a market would not smash the Union. The America that emancipated the slaves under the war power did not use that great power to base suffrage on knowledge. It fatuously based it on noses or numbers. The America of today would do or tolerate none of these things. The average moral sense of all now exceeds the ethical vision even of

the prophets of the past. For that, of course, the prophets are to be thanked, but on that the people are also to be congratulated. So, if we find a destitution of personal leadership, the compensation is seen in the general moral uplift of the people. If we find that penury has decreased among the people of the educable classes, and with it its incitement to heroic ambition, we can also find that the percentage of learning has appreciated, its area been infinitely multiplied, its facilities made universal and its beneficiaries enumerated in tens of millions, where they were enumerated in tens or at most in hundreds of thousands. A great people are preferable to a lot of great men. Those who live on high table-lands need not covet the valley folk their occasional mountains.

Right here I recognize that some may doubt the statement that schooling is free from obstacles. They should not, however, charge the needs and hardships of bread-winning at home against a system of education which is free. Education is free, whether those for whom it is free are free to avail themselves of it or not. The fact should not be confounded with the situation which may bar them from it. A man may thirst on the bank of a river if he has the lockjaw and can not drink. A paralytic, unhelped, would starve in a bakery. Schooling is free to all. All are not free to schooling. Others are able to enjoy it only a little. But the privation of circumstances should be distinguished from the wholesale state provision of education. Happily the proportion of the prevented grows smaller every year. A splendid state paternalism compels the putting of the child out to learning, if only for a while. It obliges him to serve a measure of apprenticeship to knowledge. The parent is punished if to his offspring this right is denied.

Manhood outranks moneyhood

What, however, are the people and the schools or colleges doing to counteract the dangerous tendencies inherent in conditions of increasing luxury? What substitute have they for the appeal which privation addressed to resolution? Since schools every-

where became plentiful instead of scarce, since they everywhere became free instead of expensive, since in not a few states colleges themselves are commonwealth charges, what moral force in the impartation of knowledge suffices in character-making for the conquest of the obstacles to attain it, which was formerly required?

From increasing luxury issues the tendency to crown wealth as a power and arbiter, not of business only, which would be logical, but of society, of politics, and in a measure of education itself. What are colleges or schools doing to counteract this tendency? What are churches doing? What are congresses and legislatures doing? Are seats of learning as a rule inculcating and exemplifying the gospel of plain living and high thinking? Do those that can be said to do it do so because they would or because they must? Does the battle of the standards of admission of students preclude a different sort of strife for gifts from the rich? Nothing is finer than the dedication of riches to learning. Few spectacles are grosser than an absolute suppliancy of learning to wealth. The gifts of God are not to be purchased with money. The consideration that is bought is meanly acquired and dearly sold. Perhaps the grandest events of recent years have been the munificent establishment or endowment of colleges, universities, or institutes by those to whom great treasures are great trusts and great giving a great duty and a great joy. Their gifts will draw interest of honor and gratitude for the givers from numberless hearts and lives forever. But the seamy side of college beggary or school sycophancy or faculty subservience to trustee plutocracy can not be respected—or ignored. Scholars and statesmen have been forced out of seats of learning which they strengthened and adorned because their manhood and conscience could not be treated as assets by those worth millions—and little else. Colleges or schools can not get too much money in high and right ways. What comes by other methods is a blight and may prove a curse. Between those who have done much and those who have given much, honors are at least even. Elihu Yale, John Harvard, Mary Lyon, Eliphalet Nott never saw much

money, but they did much for letters and something for humanity. They are entitled to not less honor—I do not say to more—than Vassar, Stanford, Cornell, the Vanderbilts, the Greenes, Peter Cooper, Rockefeller, Seth Low, Charles Pratt, Helen Gould, Drexel, Johns Hopkins, Clarke, the Caldwells, Fayerweather and others for a liberality to learning without parallel and with no arrogance or ostentation in it. But as great as those who have given some of their means are those who have given all. And greatest are those who have given themselves wholly unto learning. As Garfield said, "Were Mark Hopkins and a student sitting on a plank in a forest, there would be a university."

Bareness of conditions we do not need. But men of greatness for knowledge and self-sacrifice we always need. If those lesser than the giants of the past can infuse the broader foundations and larger endowments of today with the simplicity which sets moral above material estimates, spiritual above sordid ones, then the blessing of heaven will come down on our palaces and temples of learning as truly as descended the smile of God on the rude structures in which the teachers of Him vindicated His ways to men. Every seat of learning should be a pure democracy. There the rich should be as welcome as the poor, but not more welcome. The great dormitories which millionaires are providing for great universities should not establish competitions or contrasts of living, ill for those who set a pace of luxury and for those who try and fail to equal them. Poverty should be no stigma and wealth no decoration in educational life. If our children are not democratic at school, they will be so nowhere. Outside of school or college are churches for the rich and chapels for the poor; pharmacies for the prosperous and dispensaries for the indigent; in hospitals rooms for the wealthy and wards for the poor. Perhaps this must be so, perhaps should be so. Money is power. It commands all other forms of power that can be hired. Happily in chapels the gospel is as bright with comforts and solaces as in the churches; in dispensaries the medicines as pure and effective as in pharmacies; in hospital wards the surgery and nursing as skilful as in the rooms of hospitals. If life out-

side of schools must exhibit these differences, life inside of them should show as few of them as may be. Their standard and appeals should be to the conscience, the character and the manhood; there men should be regarded as God sees them and as character and capacity make them and differentiate them.

Too many of the rich try to get the government to make them richer. The hard in lot and the humble in conditions naturally follow them by coming on the government for relief or largesse. They can not see why their debts should not be cut in half by bad money, if by cunning legislation the resources of capitalistic combinations can be trebled. The late wild recourse to paper currency, with the nonsense that the soil and the crops be made the basis of banking, was but a mistaken remedy for a real grievance and only a grotesque symptom of a desperate purpose. Sometimes the republic seems to be going on the road of suffrage to the socialism and to the leveling reached through blood in France. At other times it seems to be going to the control of masses by classes which exists in spots abroad today, but which is there tempered by state and municipal socialisms not yet tried here. If our republic is to survive, we must return to its intendment. To that teachers can contribute much by teaching and more by example. They should show by what calls on manhood, that a country can be honorably saved or honorably lost; but that a bad cause lifted up or a good one beaten down by money scores an instance which shames the annals of the state, saps the honor of youth, weakens respect for age, plants in defeat revenge, and afflicts victory with remorse. Our teachers should show that government is an instrument, not an idol; a factor, not a fetish. By all of us, specially in this chamber, should be opposed the equal satire and sin which enact privileges that make trusts and which then enact laws to make war on them.

Revival of right spirit certain

I believe in the resurrection of the dead, in the resurrection of the revolutionary spirit. Cure for errors of freedom should be found in more freedom. Remedy for mistakes of republicanism

in more republicanism; redress for evils of democracy in more democracy. On a land of schoolhouses, colleges, science institutes, pure churches and a free press not the shadow of decay can really fall, though it may seem to do so. Let us educate the ignorant poor. Let us humanize the ignorant rich. More by its conscience than by its losses is this nation moved. Slow to anger, yet capable of infinite indignation, the people can be trusted both for reforms and punishments. The duties of wealth as well as its delights must be kept in view. Its credentials must be written in honesty alone. Infamous riches should have an infamous rating. Law that is on all should be for all. Government must give to nature, which knows neither favoritism nor caprice, a chance to work with man and for man. And to man a chance to work on the free lines of the mother of us all. A nation which abolished slavery can abolish the sale of law. That is the worst form of the root evil, the love of money, which is warring in our system. It finds expression in abuse of the sovereign power of taxation. By that abuse public servants enrich themselves at the expense of the people by voting exclusive privileges to those who monopolize the vital commodities. Because of this, public anger has reached nearly the danger point in our land. Till infamous riches secure the censure of pulpits, the scorn of the press, the ostracism of society and contemptuous rejection by institutions of culture and of conscience, popular resentment and unrest will increase. But the danger will cease when the evil is extirpated. It will be extirpated. Moral standards in education will help extirpate it. In America all reforms are possible, all wrongs reparable and all difficulties surmountable. Again and again this land has been saved, and again and again it can be saved by those in whom I know is dead neither their fathers' faith nor their fathers' fire.

Tuesday morning, 26 June

INDUSTRIAL EDUCATION IN GERMANY

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Men of culture are the apostles of equality. Advocates of the extension of a higher education to all men are the laborers' best friends. Since Plato said, as quoted in Arnold's *Literature and science*, a lecture that every one interested in industrial education should read, "The base mechanic arts and handicrafts bring about a natural weakness in the principle of excellence in a man, so that he can not govern the ignoble growths in him, but nurses them, and can not understand fostering any other", the advocates of industrial education have been heavily handicapped. Those, says Plato farther, "who exercise such arts and trades, as they have their bodies marred by their vulgar businesses, so they have their souls, too, bowed and broken by them." And if one of these uncomely people has a mind to seek self-culture and philosophy, Plato compares him to a bald, little tinker, who has scraped together money, and has got his release from service, and has had a bath, and bought a new coat, and is rigged out like a bridegroom about to marry the daughter of his master who has fallen into poor and helpless estate. This hits hard. It has hung as heavily and worked as poisonously on humanity's poor weak shoulders as did the poisoned robe on the back of Hercules. Europe's aristocratic hatred of trade would seem to have had its origin here. The officer who will take the tradesman's daughter, provided her patrimony is large enough, makes it a condition that he be not pestered with the presence of her parents if they are in trade. The day when the broken, diseased baron, who has drained the dregs of vice and sounded the depths and shoals of disgrace and dishonor, may despise his wife's father and family because they buy and sell goods has not yet passed away; but it is passing. It is only a rapidly de-

caying and dying element of any people that persists in this ancient stupidity. Not unlike this social war was the war once so general between the B.P., or scientific, and the M.A., or classical, men. A belief has rapidly gained ground in recent years that a scientific education may be as good as a classical education, and for the practical purposes of life, better. A recognition of this fact has undoubtedly furnished the advocates of scientific education a foothold when engaged in debate with their opponents. Unluckily and unfortunately there are two camps. Guelf and Ghibelline gave no less quarter the one to the other than do the extreme friends of the rival systems. Luckily, however, there are large-minded men in both camps. Up to quite recent times, the classical man regarded the scientific fellow as his inferior. Weakness of intellect, incapacity to come up in classical studies were put down against the man who worked for a scientific rather than for a classical diploma or degree. He who read Homer and went in for the humanities wondered at his weaker brother's inability to take his, the M. A. man's, tasks. He forgot if he did not fail to see that it requires great mental power to pursue paths in mechanics and mathematics. Quite often the man who ranked highest in Greek and Latin stood lowest in mathematics or mechanics, for luckily the man in the so-called higher course had the great advantage of being compelled to take "some", quite often a great deal, of the B. P. man's course. The two courses when analyzed will be found too narrow for our present life, if the student in the one is never to enter the territory of the other. Under such conditions, one is not sure that one would not prefer the classical system to the scientific, though one is ready and willing to admit that for gaining a livelihood or making one's way in this industrial world, with its network of mills and lines of trade, the scientific seems much the better. This war between the two systems has not been confined to our country. Germany has had it. The restless spirit that rules the empire recognized the need of doing something to smooth over the lines between the two schools. He gave to Charlottenberg's polytechnic school the right to

grant doctors' degrees as high as those of Heidelberg, Leipzig or any of the old universities. No act of his reign will ring longer in the ears of mankind than that act.

It may be well to pause and see how little either course by itself signifies what a complete education implies. The investigation will be worthless if it does not make plain the differences between the two. The classical man deals, unless he includes mathematics, mechanics and physics in his course, with works of the fancy or imagination. In Homer and Hesiod, Demosthenes and Cicero, Dante and Shakspeare, the last word has not and never will be uttered. Who is to tell us the mysterious meanings put by Göthe into his *Faust*? Particularly into the second part? The Bible has a hundred readings or renderings of a single passage. Christ's garments were not torn into as many tatters as were his words by the different denominations and by the commentators of the same denomination. A man educated in the classics may develop his fancy and his imagination, in a way his logic, but not in such a way as the reasoning power is trained and developed by mathematics, physics or mechanics. In these lines he demonstrates. In the classics he thinks a thing is so: in physics, mathematics or mechanics he knows it is so because he can back up every assertion by a proof or ocular demonstration. In mathematics he learns to get a fine grasp of his mind. He must; otherwise it will be worthless. If he let it wander, as he does more or less in the classics, into the wider fields of the imagination he will solve very few problems. In mathematics he never lets his mind get outside the four walls of addition, subtraction, multiplication and division. His solutions depend on his following the very finest of logical lines. Any departure from them appears in the answer. Go over the operation as often as he will, accuracy is attainable only by the most careful and consistent work. His mind is happy, too, with attained results and has the added pleasure of certainty. With works of the fancy or imagination, certainty is not always possible. A certain satisfaction is possible, mathematical certainty very seldom.

In mechanics, as in mathematics, the student must keep along logical lines; he must aim at accuracy and follow well-known lines that lead to it. His methods must be mathematically correct; that is as correct as eye, hand or mechanical contrivances can make them. Otherwise the parts of his machine or object will not work. They will rattle or bind. The unwieldy wood, copper or iron calls his attention to the error. In physics it is the same. If a man be at work in a chemical laboratory, he must make sure of his experiments, by the most careful adjustments; otherwise he may pay a great penalty, for any, even a very trifling carelessness. It is easy to see that a man trained, as a man is trained in mathematics, mechanics or physics, etc., is trained to take hold and work. His grasp is certain. His mind is trained to a strong, self-reliant way of working. I am not speaking of the careless, cocksure worker. There is nothing strange in the fact that the big engineers, contractors, directors of huge manufacturing and mercantile organizations have had the scientific rather than the classical training. Nor is it strange that the clergy, lawyers and doctors are as a rule men who took the classical course. Classically trained men appreciate, I think, at its full value the scientific system. I wonder often if the scientific men understand the classics. A man does not live by bread alone. There is much more to do in life than earn a living. Education is not only intellectual; it should be moral, social and physical as well. If we have logical faculties, we have also fancy and imagination—artistic and esthetic faculties. All these are as eager for intellectual food as Siberian wolves for physical sustenance. The best way to settle the silly war between the two schools is for the scientific men to see and acquire all the obtainable good in a classical course, and for the classical men to get all they can of the good things in a scientific training, and carry it to the pulpit, bar, architects', doctors' or artists' offices.

There is so much to be said in favor of a more extensive and systematic scientific training, as a part of our public school system, that one can do little more than make suggestions in the

20 minutes assigned for this paper. It may be best to plunge right into the midst of the German industrial system by saying that it is excellent, in its results, and is looked on by most people as highly successful in its methods. It consists of industrial, industrial art, commercial, commercial high and technical schools. The names convey so good an idea of what each class is intended to cover that it is hardly necessary for me to use in explaining, time that can be employed more profitably in elucidating methods and showing work accomplished. Because we have built up the richest nation on earth without such a system some are saying that all this talk of the great need of industrial, industrial art, commercial and technical education is nonsense. That we have built as well as we have is no reason why we should not and could not have built better. There is only assertion, not argument, in the statement that Germany has to copy and borrow from us and others. The question is not so much what we are as what, with such schools, we might have been. We were working with marvelous resources. The thing for us to do was to build up such a system of education, as has helped the Germans, behind the barriers of our protective tariffs. It is not too late now. Another question to ask is, not what Germany is or is not with her schools, but what she would be today had she not had them. I have no hesitation in saying, lacking these schools, Germany, instead of occupying her present proud position at the head of continental Europe's industrial states, would be struggling to maintain the integrity of the empire.

A contrast

Our resources are rich beyond belief. In 200 years we have not taken off the top crust of our natural wealth. While England and Europe are taking counsel because of a coal consumption that threatens to exhaust their mines, one state of this Union, Alabama, might give the world an indefinite supply. Nor is this true of coal alone, but of iron, the other great essential to industrial prosperity. We have everything at first cost. Germany has to import hundreds of raw materials. Interesting as is this phase

of the question, I dare do little more than make suggestions. While there is much in Bismarck's aphorism that the nation that has the schools has the future, there is more in this: the nation that has the schools plus cheap foods, cheap raw materials, particularly coal, iron and limestone, will have the future. We have the cheap foods, coal, iron and limestone. Our purpose, our duty is to push forward for the schools. Till coal's application to manufactures was found out, Spain, Portugal and Italy's republics ruled the commercial and industrial world. England's, Belgium's and Germany's coal deposits changed all this. Both Belgium and England, however, had advantages over Germany. To offset these, the Germans, according to Scott Russell, a great Englishman, concluded that "the one thing to set against English wealth, in raw material, was greater *skill*, in using what we [Germans] have. The way to compete with England and Belgium, in mechanical power, is to apply high science in the treatment and application of it; and the way to compete with them in iron and skill is to buy of them the unwrought material, which they will sell us at nearly cost price, in consequence of their fine trade and close competition, and then to apply the skill of our own artisans, highly educated and trained, to construct out of these raw materials all the higher kinds of tools, instruments, and machinery in those forms and applications which enhance to the highest degree the value of the material". This they did, and, as Prof. Thurston says, "wisdom and statecraft were set against natural talent and industrial advantage and a mighty leadership in manufactures". Wisdom and statecraft persevered, not for one year, not for a decade, or even a generation, but for decades and for generations; and today see a reward in a magnificent success. The "cheap and nasty", pasted all over the products of the empire in the centennial exposition, at Philadelphia, has been changed to "good at the price" on wares that go into every part of the world. "Made in Germany", that England thought would wound the empire in its vitals, was the best advertisement Germany has ever had. The nations that had bought her products hitherto in London and Liverpool went afterward and go for them

now to Hamburg, Leipzig and Berlin. While silk purses may not be made from sows' ears, fairly good pocketbooks may be if tanners are taught to tan them properly. Germans are practically the only people on earth who have first-class tanning schools. They were wise enough to put the practical chemist side by side with the practical tanner. The reactions not understood by the one were understood by the other. What is the result? A nation that buys its hides and tanning material outside leads the world in many if not in all leathers. It will interest American readers to learn, however, that the tanning school at Freiberg, in Saxony, perhaps the best in the world, is fitted, from cellar to mansard, with machines invented in this country; and to learn farther that the head director was for 15 years foreman in a famous Milwaukee tannery. This looks like carrying coals to Newcastle or marble to Carrara; but it isn't, it is only indicative of the empire's desire and determination to do all in its power to put its people at the head of all commercial and industrial countries.

Rolling stones gather no moss, but Germans found that they pick up a lot of polish; hence they send their boys out to learn languages and to study foreign markets. With what results? Today Germany and Germans are better known in all parts of the modern world than were the Romans in the ancient. London, Liverpool, Bradford and Manchester have hundreds of young Germans studying not only commercial geography, but a dozen other things that will be found useful, by and by, when they go back to Germany or when they go out as agents to far-off lands. New York city's principal street looks like a list of German firms. It is all part of the marvelous system of industrial education that has done and is doing so much to make the empire a model state and a most successful maritime and manufacturing one.

How has Germany succeeded?

How has all this happened? Germany has had the school-master abroad. He was at Sadowa and Sedan. He fought every war of the empire since 1848. He began to build before Bismarck

was born. He stood side by side with Stein when the cornerstone of the modern empire was laid, not at Versailles, but in Berlin, where he began to build the nation for '70 and '71, forging the iron, refining the steel and enriching the blood that made Bismarck and Moltke, Sadowa and Sedan possible. He sat side by side in the saddle with Moltke when he rode along the invincible lines before 50 battles. He was at the Vulcan works' forge when the keels of the *Kaiser Wilhelm der Grosse* and the *Deutschland* were laid. He was with Krupp at Essen, Heyl in Worms, Lanz in Manheim, Hartmann in Chemnitz, before they began to be known beyond the borders of the empire. He was at the laying of the corner stone of the Crefeld silk industry when a successful effort was begun to beat Lyons in United States markets. He was at Ludwigshafen when Dr Caro and his chemists took the refuse matter of the world's gas houses and converted it into a hundred different colors for the dyes of this and other countries. Dr Caro told me 12 years ago that the dream of German chemists, at that time, was grander than that of any ancient alchemist or philosopher bending above book or alembic; for theirs was a hopeless task. Dr Caro and his chemists made no effort to turn the baser metals to gold, but to find an artificial substitute for indigo. 12 months ago they succeeded; and so successful were their efforts that the United States government appraisers put their product as high in the duty schedules as the natural product of India or Ceylon.

The German educational system

No one familiar with German educational ideas and methods is very eager to have them introduced into this country, in their entirety. I would much sooner think of setting up a kingdom modeled after the manner of any ancient despotism than think of giving our people just such a system. I hope this will not be considered malicious or malignant. The empire's system may be the best system for Germany. It would not work here. At least I think so. Beginning with the kindergarten, the German educational system has the primary, compulsory from the sixth to the

14th year. An unfortunate feature of the primary system is its division into social classes. These are almost as carefully divided, even in childhood, as in later years. Boys begin their preparation in these schools for their later life. I say boys, because a girl or woman in the German empire, harsh as it may seem to some people to hear me say so, occupies a much inferior position to the boy or man. It seems sometimes as if this statement might be modified for the higher or highest walks of German life; but I don't believe it should. From the primary the boys who can afford it go to the gymnasiums. There are two kinds, the *real*, or scientific, and the classical, called simply the gymnasium. The poor boys go from primary to mining, weaving, knitting, building, mason, bricklayers, plumbers, agricultural and other apprentice schools. They go also, to their 16th year, to what is called the farther-developing schools. There are secondary schools for girls in which they are taught housekeeping very successfully, drawing, some art, music, literature, etc. From the real, or scientific, gymnasium, where he stays from his 10th till his 18th year, the student goes to the polytechnic institute for a four year course. The classical scholar leaves the gymnasium at 18, he too having entered at 10, and goes up to one of the old universities for law, literature, medicine, etc., and stays there till he is 22 or as long as he likes. Some scholars go from the real, or scientific, school to commercial high schools or to schools famous in certain lines like the Freiberg school of mines or the mining school at Clausthal in the Harz mountains.

Industrial schools

Industrial schools, as the name implies, are devoted to a particular industry. Saxony, a kingdom of less than 4,000,000 souls, has 250 such schools. Is it any wonder that that little kingdom, hundreds of miles from the sea, sends millions of dollars' worth of its manufactured goods to all parts of the world? It has lace-making schools at Plauen and Eibenstein, centers of the lace industry, knitting schools at Chemnitz and Limbach; for those cities are famous for their hosiery and gloves. There are weaving schools in almost every large weaving center, sometimes two.

There are also schools to teach toy-makers in the mountains, a magnificent plumbers school at Aue, center of the can-makers trade. Dresden and one or two other towns have blacksmith schools. By the side of benches or tables, boys, about to take up the blacksmith's trade, are taught the anatomy of a horse's hoof, its original form and changes. With plaster casts, which the boys examine, the teacher explains the anatomy, showing where quick, nerve, vein and artery lie in the normal and, 99 times in 100, in the abnormal forms. Demonstration is made perfect by comparing the plaster cast forms with the real hoofs. The anatomy of the leg from the knee down is taught, too; and instruction is given in the treatment of the simpler forms of disease. From the theoretic department, or lecture rooms, the boys pass to a blacksmith shop, where excellent blacksmiths are busy at forge and anvil shoeing actual horses or doing the dozen and one things done in a blacksmith shop. Here the boys work, learn how to handle tools, to weld, turn, anneal or temper, etc. Anything more practical, it would be hard to imagine. The result is found in the fact that a German horse seldom goes lame because of a nail driven into the quick by an inexperienced or incompetent workman. How often has it happened here that good horses are forever ruined by men who knew no more about the anatomy of a horse's hoof than the ordinary man knows of astronomy. Add such an education to the natural ability of American boys, and you will get blacksmiths to beat Vulcan forging the bolts of Jove. This is as it should be. "In the sweat of thy brow shalt thou eat thy bread" was not meant for one man, but for all men. This ordinance of the old dispensation was reaffirmed by St Paul in the new dispensation when he said, "Let no man eat unless he labor." The world we live in is a working world. It is no longer a disgrace to earn one's living. The farmer in the field, the weaver at the loom, the mechanic at the bench, the cooper at his cask, the sailor on the deck are noblemen as are those who inherit names. What is true of the blacksmith is true of persons employed in nearly every occupation. Strange as it may seem, there are special schools for boys who are to work on river and canal boats.

Industrial art schools

Besides the industrial there are industrial art schools. What is meant by industrial art schools? This question is very often asked by men who are afraid of the name or unfamiliar with educational methods. Man is more than a mere machine. His education must be moral, physical, social and intellectual, if he has a moral, physical, social, intellectual nature. Under this last, there are many lines that he might follow. There are, however, only a few great generalizations possible. Men have esthetic, artistic and scientific tastes. While one brother turns to boat-building, another turns to law, another to art, another to literature. Men and women look almost unconsciously for what is true, beautiful and good. This is opposed to the utilitarian type, men and women who want only useful and practical things. Art in education answers our esthetic and artistic yearnings. Great values are imparted to a thousand things by the magic touch of art. To teach art of all kinds is one of the empire's great aims, but to teach art as applied to industries has become a necessity. France has done this so successfully that the empire, even England, ourselves and others must follow her. It is in the application of art to industrial products that education enlightens and ennobles. In answering a people's esthetic yearnings a government gives hostages to fortune. By art, people pass from the crude to the ornamental and attractive. Life opens new vistas of pleasure and power.

In the lace-making schools at Eibenstock, the interest increased a thousand-fold when the students had art and lessons in estheticism added to their courses. When told that curtains, ceilings, furniture, coverings, tapestries, decorations should harmonize or correspond in style, baroque with baroque, Louis 14 with Louis 14, empire with empire, etc., a new pleasure was added to school work, a new incentive to study. When told that the parts need not necessarily be all alike, that is of the same pattern, that harmony need not mean uniformity or monotony, they learned to understand many of art's mysterious meanings and to love their work. Wood-carving added art to the industry of carpentering;

pattern-making adds art to weaving; the picture-painting artist adds art to painting as an art. If talented, he mounts to the regions or realms of pure art and leaves the industry to others. By the application of art to its industries, the empire has lifted its people into the lofty altitudes always occupied by artistic people. Nor need such an education be limited. Angelo and Leonardo da Vinci were architects, painters, sculptors (one at least), writers, poets, statesmen and engineers. Their lives were rich in usefulness and beauty.

That this is not more universal is due to the fact that "art is long and time is fleeting". Much has been done and done well. The much that remains to be done will be done as fast as the empire finds funds and time to do it. It is along artistic lines that it leads. Take such simple things as hosiery, underwear and gloves. When it is a question of machine work, we win. When skilled hand work has its share therein or thereon, we are beaten. Hosiery buyers who came twice a year to Chemnitz to buy for American houses, told me that it will be 25 or 30 years before we shall be able to finish as the Germans finish. There is a fixed relation between the industrial and the industrial art school. As an example, take the jewelry school at Pforzheim in the Black forest. Both schools, industrial and industrial art, are in the same building; as I remember it, a beautiful edifice classic in its architectural form. In the industrial school the boys learn how to mix and apply solders, what they will need later as jewelers about metallurgy, much plain and a little ornamental drawing. Should a boy in the industrial school show a decided tendency toward art, he is put into the industrial art side of the building, where he adds ornamental drawing, designing, etc., to the metallurgy or other essentials of his future trade. If to this he adds remarkable talents he is told to try Paris, his expenses being paid. Every spark of talent or genius is eagerly watched and sought for. The German is not nearly so bright, artistically, as our people; but he is patient, plodding and persevering, and he who woos art must be patient, persevering and plodding, if he wishes to succeed. Anything like an elaborate or even es-

essentially necessary description of the industrial art schools of the empire would require too much time and space. The only thing like them in England and this country are the so-called trade schools, and these are mere shadows. The Germans call them trade (*gewerbe*) and art trade (*kunst-gewerbe*) schools.

The artistic and esthetic adds not only wealth but all that life has in it worth working for. The sentimental side of humanity, so-called, is much more interesting than the selfish or sordid. If there is one field more fertile than another for us to cultivate, it is one that has lain fallow from the beginning—the field of industrial art. We have been satisfied to buy or copy from or call in foreigners for the first hundred and fifty years of our industrial history. We have gone to foreign Pharpars and Abanas, not for influences and inspirations, but for men. We went to Paris, Rome, Berlin, Berne, Basel, Belfast, Glasgow, London. The dyers, bleachers, spinners, for a long time even expert mechanics, scientists, musicians, painters, decorators, sculptors, wood-carvers, chemists came to us out of foreign parts. I am not opposed to their coming. I wish more would come. What I do oppose is our indifference to the means or methods by which this higher class labor is made or trained. Henri 4, of Navarre and France, is said to have longed for a time when every French peasant would have a chicken in his pot for his Sunday's dinner. Here we have the chicken, but my hopes are as high. I want the time to come when a poor man's food shall be eaten from Dresden china, china made here equal in beauty of art design and finish to any made in Dresden or Limoges. Why not? Will that indicate a greater advance than is indicated today when the utensils in the home are compared with those of a few years ago?

Technical schools

Beyond or behind these trade, that is industrial and industrial art schools, are the empire's technical schools, called technicums and polytechnicums. I anglicize rather than latinize the plural. It is hardly necessary to enter on a description of these, so well are they known. What share they have had in helping the em-

pire forward, it would be hard to say. The work done by them in building up a great system of education, it would be hard to overestimate. Engineers, chemists, great machinists have gone out of these to fill important positions all over the earth. They are noted for their thoroughness. The one at Charlottenberg ranks high, fully as high as any in Europe, with possibly a single exception, the one at Paris. Boston's school of technology I was told is better. I hope it is. The best evidence goes to show that both Berlin and Paris schools rank very high indeed.

Commercial education

Germany in 1870 had 64% of its people on farms; today it has only 33%. It has changed from an agricultural to an industrial and commercial state. The record of the last 30 years reads like romance. Nothing in the history of the old Hansa towns equals the records of Bremen, Hamburg and Stettin, in recent years. In 1890, 2522 English ships went through the Suez canal and 275 German. The English percentage of the total number that passed through was 74.4%, the German 8.1%. In 1899 the English ships numbered 2310, or 64%, the German 387, or 10.7%. These percentages persist in Germany's favor, even in the tonnage. In the years 1895-99 England's part in the total tonnage that passed through, went down from 71.7% to 66.6%, while Germany's went up from 8.2% to 10.8%. Hamburg's and Bremen's leading companies, the Hamburg American and the North German Lloyd, are the largest lines in the world. How has all this happened? English kings, some one said, in order to stimulate trading (we find it in the laws of Athelstan) gave the title *thane* to any merchant who crossed the sea thrice in his own ship. Germany has given even greater encouragement, she has judiciously and wisely subsidized companies, encouraged her captains, fostered commerce by means of her consuls and her foreign office, granted privileges cut canals to unite seas and widely separated cities, and has added a system of commercial education the most commendable in Europe. Nothing in the long line of legislation, beginning away back in the early years of the century just ending, equals,

certainly nothing surpasses, the work done to make the empire England's rival, if not equal as a commercial and maritime power. Nor is the end yet. Hamburg's new commercial university, the commercial high school at Leipzig, the colonial movement, the recent legislation looking to a larger fleet, are all along a line persistently followed by the empire's leading statesmen and politicians, men who have learned the wise lesson taught by the wisest of the Romanoffs, Peter the Great, that to be truly great, a nation must be commercially great. *Deutschland's zukunft liegt auf dem Wasser*, "Germany's future lies on the water", is the wisest statement that has fallen from the emperor's lips.

It is hardly necessary now, after all that has been said, to add that the empire's continued success is due to her marvelous methods of educating, even the masses that intend to take up and follow a commercial life. The course begins away back in the woods. Saxony, an inland kingdom, whose capital is Dresden, whose chief commercial city is Leipzig and whose chief manufacturing city is Chemnitz, exports millions not only to this country and to England, but to all parts of the world. Were we as willing to work along these lines as are the people in Germany, what is now a wilderness of wickedness in our large cities would be a paradise. For, while the empire's laws in the matter of education are compulsory, the powers are never enforced, that is there is no need to enforce them. "The people themselves" says Sir Swire Smith, "have experienced its [education's] advantages, are its advocates, and an evasion of the law is never attempted." "Whatever you would have appear in a nation's life, that you must put into its schools" is a German motto old as any in history. Hence we have the empire from one end to the other insisting on the incorporation of technical, industrial, industrial art and commercial education into the entire educational system. Success has followed. Knowledge indeed is the great leveler. Monopoly and privilege are doomed the day all classes are educated. Even the rich nobles no longer look on labor as degrading. The kaiser's example commands emulation. Each Hohenzollern learns a trade.

Unimpeachable and unbiased testimony is coming in from all sides to show that there is a great leveling up, not down. There is a movement on foot to remove the rankling sore caused by the old class distinctions. The best of the empire's barons are the big men who have built and are building its great industries, the Krupps, Hartmanns and Heyls. Prof. Blondel, sent by France, at the head of a commission, to seek out the cause of the empire's marvelous industrial and commercial progress, says it is due, 1) to the temperament of the German people, 2) to their marvelous system of industrial education and 3) to the successful application of scientific methods to manufactures and commerce. Could anything be more concise or true? It sustains similar opinions put forth by Sir Philip Magnus, Dean Johnson, Prof. Thurston, Sir Swire Smith and others. The third cause is a corollary of the second; scientific methods are susceptible of application only after they are learned.

"If it is notorious", as a well-known English authority tells us, after visiting the country, "that the foreign railways which have been made by themselves, in the educated countries of Germany and Switzerland, have been made far cheaper than those constructed by us in England, it is because they have been made by pupils of the industrial schools and technical colleges of the country, and I know many of their distinguished men who take pride in saying that they owe their positions entirely to the technical schools. I find everywhere throughout their work marks of that method, order, symmetry, and absence of waste, which arise from plans well thought out, the judicious application of principles, conscientious parsimony, and a high feeling of professional responsibility." This, I may add, applies to every line of industrial and commercial life. To intelligent, broad, exact knowledge they add an attention to detail that to us seems incredible and impossible. By this means, the empire was built.

As it is no part of my purpose to deal with the empire's entire system of education, I leave to others or another time the pleasurable task of picturing the degrees of perfection arrived at along other lines. For today, the tale as I have told it must suffice. A mighty edifice has been built up on the humblest beginnings. It is the oak and acorn tale retold.

What these schools have done for Germany

The German schoolmaster has done his work well. The broken fragments of an empire, once discordant states, were welded by his power into the most compact force since Napoleon sank into his island grave. He has changed the empire from a slow moving, hard working, almost poverty-stricken, agricultural state to an industrial and commercial one, rich in material wealth beyond all that her best and most ambitious statesmen believed possible but richer still in all the highest achievements of human endeavor. Not only is the new nation a hive of human industry, it is the home of a culture, refinement and education marked by the arts and sciences, music leading, that will bear comparison with Greece when Pericles and Aspasia were in Athens. In the useful arts the empire is easily ahead of all others. In electricity it equals ourselves; in certain lines of chemistry it not only has no equal, but no competition of any kind worth considering. From being a buyer of ships at Glasgow, Belfast, and Barrow, it has become the best of builders; its iron-masters and steel-makers, its Krupps and Hartmanns are hardly equaled by the Cramps and Carnegies of our own country. In Stettin, one yard, the Vulcan employs 6500 men. It built the best ship that floats, *Kaiser Wilhelm der Grosse*. It is to build better ones. Ditches have been dug into harbors for the huge leviathans of the ocean. Canals have been cut, one from the Baltic to the North sea, another from Berlin and other big cities for the purposes of cheap transportation and easy communications.

In all this the schoolmaster is easily recognizable. It is for us to emulate, not envy. Education, of any kind, elevates. The worker in wood who knows the laws of botany, the worker in iron who is a metallurgist, the toiler at the mule, loom, or in any line of textiles, who is familiar with fibers and their laws, patterns and the laws of designing, the farmer in the field who knows the laws by which the grasses grow and the flowers bloom, who knows the courses of the softly shining moon and the kindly smiling stars, the soil suffusing clouds or the sun's effect on flower

and fruit and vegetable, will give the God who made them and gave them their laws a worship higher than that of the ignorant boor or peasant steeped in ignorance.

Isaac H. Stout—There is one thing that is essentially American, and that is, if you want a definite and conclusive opinion on any subject, to apply to a man that does not know anything about it. I am here to furnish you that opinion on that basis. It is impossible through the medium of books, papers or reviews for any person to get so clear and concise an idea of the condition of industrial education in Germany as has been given in the excellent address of this morning. I have really begun to think that I know a whole lot about it, simply from hearing this brief statement. There is no question, however, of the historical facts. There is no question, as we read the reports, of the progress of Germany along the lines of commercial and industrial education. There is little question that today America's most formidable rival in the markets of the world is this same German nation; and it is only necessary to read the statements of the kaiser and of the German press to understand that Germany perceives its most formidable rival in the markets of the world to be the United States. The whole question, as far as I can say anything about it today, will be how far it shall relate to America. The conditions have been well stated. Industrial education as established in Germany went into operation readily for the simple reason that the people there had been trained along class lines. In this country, up to the present time, every effort of our educational system or of our educational work has been to obliterate all class lines. It has been our pride that the boy of the humblest parentage who enters our schools, if he has in himself the ability, the ambition, the working power, can reach any position; and those who have made our history have borne out this rule. Those of us here, however, who look over the conditions carefully, know that this is not so true today as it has been in the past. Many persons in this audience, occupying positions of trust and of honor, who have done good service in this cause in which we are all interested, know that they would have no earthly oppor-

tunity of reaching the place that they occupy should they start now with the preparation which they started with years ago. We must recognize the fact that what has been in this country belongs to the past, that our civilization advances, and the preparation demanded at the present day even to start along any path in life is probably four times what was required years ago. There are men sitting here, with honorable degrees from colleges, who will remember that the college course 40 years ago was little if any better than the high school course of this state. So we have moved, and we must keep moving. It is an indisputable fact that, unless our educational institutions keep in touch with this movement, they will lose the proud position that they have attained. Climatic conditions, the intermingling of races, have here produced a people probably surpassed by none in the world in quickness of perception, in readiness of invention, in the ability to improve on any and every industrial scheme or undertaking proposed or projected. But, in order to compete with other nations, I believe that it is entirely settled that it will be necessary for this country in the future to provide more and more for the industrial training that today is so firmly established in Germany and some other countries and well started in England. Nations can not count, any more than individuals, on natural abilities to carry them through against careful preparatory training; and I have long believed that the advanced education in this country was recognizing this fact. For instance, our attention was called to the distinction between the old classical course and the scientific course which was so strong years ago; but we have seen a great departure. No matter whether we agree with that departure or not, we see it in Harvard, in Cornell, even growing in Yale, in all the great universities of our country, where students are more and more directed along industrial and scientific lines, rather than along the purely classical education. It is well that it should be so, as it marks the change in our civilization; because the time was when the old classical institution was the one thing that America needed to maintain culture, to elevate thought, to teach the humanitarian elements that were in danger

of being crushed out by our haste for wealth, by our commercial, money-making instincts. The courses that have been introduced simply indicate that the American people are recognizing the absolute necessity of these scientific and technical studies in their higher schools. While so much has already been accomplished, it is undoubtedly true that more of these subjects must be taken, and that our higher institutions of learning will encourage more and more technical training. Let me give you an illustration. It was only this last winter that the legislature at Albany passed a bill making an appropriation to Alfred university in order to establish there a plant in clay-working. There was nothing of that kind within the state of New York, yet probably the great clay beds that lie within the state when properly worked are worth more than any other mineral it contains, will bring more wealth, will bring the wealth that comes from manipulation and labor applied to the very cheapest of raw materials. The state has taken, in my judgment, a wise step, and it will undoubtedly be true that other institutions will add departments of a similar kind and establish courses in technical lines.

We have spoken of the power of invention. It is true that Americans have been the most inventive people in the world, but this you want to note, that their inventions have been largely labor-saving appliances; that inventions of scientific character have been more numerous in the technically trained countries of Europe. Another thing that we want to note is this. If you have watched the patent office and its reports, you have found that less and less are the useful inventions coming from the great masses of the people, as they once did, but more and more are they coming from those who have received a scientific and technical education. There was a time when the Yankee with his jackknife whittled out his model, and, if it did not work, he whittled it again, and in fact he finally perfected his invention by what was called the "cut and try" rule. Today the great inventions of the world are founded on scientific principles, and the old rule of "cut and try till it works" is being rapidly superseded; and more and more will the useful inventions be made by people who have been thoroughly trained.

I was greatly interested in the description of industrial art education. My mind went back to the great exposition of 1876. That exposition did not compare in extent with the one held in Chicago, but that exposition at Philadelphia was probably the awakening almost of art education in America. Our people there for the first time seemed to come in contact with and appreciate the absolute necessity for artistic endeavor.

I believe that, in the institutions that may be founded in our great centers of learning, the one thing most essential to our commercial supremacy is this industrial art education. We have gone so far in allowing the direction of manufacturing to be under a single man, so far in what we call machine or piece work, that a single shoe in one of our large shoe manufactories will go through nearly 60 hands before it is completed, each person knowing only his one little part, and that one little part that he knows the apparent end and aim of the mechanic. But above these mechanics must be an intelligence that comprehends it all, and to my mind the necessity today for industrial art education is to furnish the latter with the brains that shall direct this great mass of people. Whether it will ever be advisable, at least for years to come, for us to follow so much of the German industrial education as to teach the trade which each child is to follow in the industrial school, is another question. There is no question in my mind whatever that higher departments of technical education are urgently needed in this country, and that if we are wise we shall provide them.

I was glad to hear also of the commercial trend, because I have been always an earnest advocate of that kind of training. I never was more pleased than when I learned of the action of the chamber of commerce in the city of New York, in connection with Columbia university, in promising to establish in that university a commercial course. The chamber of commerce has grasped the idea that we must ask from our great universities men trained along commercial lines who have studied the questions connected with the commerce of the world and given them intelligent consideration, and whose training will enable them

to go to the head of the great manufacturing institutions and direct the scores of employees. I do not believe there is a question in any thoughtful mind as to what will necessarily follow in this country. I hope there is some one here today who has thought out this problem far enough to tell us how the training of our common schools compares with the training of the schools of Germany that have tacked on this higher work. We are to have a discussion on manual training. I hope to learn something from that, because at this stage the point of vital interest to us is there. I have no doubt that the time is coming rapidly when the educational institutions already established in this country, the great colleges and the universities, will put into their work technical training. I have no doubt that the great cities of this Union will more and more encourage and establish technical training schools. And then will come the hardest problem of all for us as teachers, that is, what we shall do with the boys in our school that will most facilitate their progress from the work done in the school to that higher sphere of technical training, hardest when we think, as we look at the hundreds assembled before us, that we have no right to say that that boy shall be a jeweler, that boy a merchant, that boy a maker of textile fabrics. Trusting that the wisdom which has improved the educational facilities of this country at a rate probably never before equaled, unless it be by the revolution which took place in Germany after the invention of printing, will solve this problem rightly, trusting that that wisdom will furnish us the means by which the country may retain its proud position, commercial and industrial, among the nations of the earth, we can look forward with hope to the general education in this country to stimulate and direct thought along these practical lines.

Prof. Charles De Garmo — I should like to ask a question of Mr Monaghan. The point of the question is this: how far can we afford to sacrifice efficiency along these industrial and commercial lines to our feelings of democracy? To explain what I mean, I would say that the tendency among our American schoolmen is to assume that our education must be democratic whatever

else it is, and it can not be democratic unless it is done under one roof and under one head. I have seen some efforts at establishing commercial education and putting practical commercial courses in village high schools, and it amounts to almost nothing except a little training in business technic. Now the question is going to confront us very soon whether our commercial high schools and these industrial art schools shall be under the same roof and management as our classical high schools, or whether they shall be independent institutions. What is the true line of progress for us? Shall we build up these schools separately or shall we keep to the democratic idea and keep the whole thing under one management?

Prof. J. C. Monaghan — That is one of the very difficult problems that confronts us. The best answer to it has been given by the large manufacturing establishments of the country that have adopted a system of apprenticeship training in connection with their establishments. Brown & Sharpe, of Providence (R. I.) are today at the head of the world in fine machine tools, and they have sent two or three of their young men abroad for their training. The son of the superintendent has been two or three years in the German schools. They have something like 250 young men, who begin at the blacksmithing shop to learn about the tempering and annealing of steel and the welding of iron, in fact all that pertains to the blacksmithing of iron. They follow that training all the way through, and the result is that Brown & Sharpe have today the finest class of help on the face of the globe. The problem you present is difficult, much more difficult than any other. Others have said that the best way would be to add to the grammar course a one, two or three year course as the case might be, for this reason: the vast mass of our people are willing to give their children the best possible advantages. In our towns and cities they say, "I will send the boy through the grammar school anyway". Those who can not afford to send the children to the high school will do that at least. So the thought has occurred to many that, if we should incorporate into the grammar school system something like our present manual training system, with

this exception, that in the sections where we have the woolen trade the manual training school, if we will name it such, should deal with the character of woolen textiles, it would be well. In other words, the boys and girls should be taught to sort the wool. Where Germany and England beat us today is in the fact that their workers are so clever that they can select from a mass of wool in front of them from 10 to 20 grades. It goes without saying that the people who select their wools in this fine way will achieve infinitely better results from the beginning to the end. The machinery will not suffer so much, and the result will of course be finer work. Some have said that the marvelous skill in colors of the eastern people is due to the fact that the children are taught in just this way, so that an Indian or a Persian in the textile schools will select two colors, no. 25 and no. 26, and separate them, where the European would not be able to distinguish no. 10 from no. 30; so marvelously are they trained as children in the matter of colors. Well now, if we put this system right near the woolen districts, and you know of course that there is such a district in this country, or near the great industry growing up in the southern states, then if in Waltham we have a school for the watch trade, one in Attleboro or Providence for the jewelry trade, and have a system of schools of that kind attached to the common schools, a manual training school in all our large cities, and schools of technology in connection with all our universities, it seems to me that such a system may easily be adopted and made a part of our public school system. I might add that only the best teachers should be put in charge. The Germans often select from the factories. For instance in Chemnitz, where I was, the man who had charge of the knitting schools was selected and given money for a year's travel; they sent him all over the world. He then came back and took charge of the knitting school for the city of Chemnitz, and the result is that Chemnitz is today the center of the knitting industry of the world. Where formerly it was Troyes in France or Nottingham in England, today it is Chemnitz. Formerly our buyers who were sent from New York city abroad to buy, used to spend

six weeks in Nottingham and a day in Chemnitz, but that is changed; today they spend weeks in Chemnitz and only hours in England to visit friends, not to buy. I hope I have made myself clear, and I hope I have answered your question at least half satisfactorily. It is a very difficult question to answer.

Pres. Boothe C. Davis—I have been called on to investigate some points in relation to this particular topic. Within the past year some of my experiences in this investigation have been quite unsatisfactory to me, and, as they pertain somewhat to the type of education under discussion today, throw light on it. I have been specially interested in the able discussion this morning, particularly that which relates to art training; manual training in applied art, or industrial art education. Dr Stout alluded a few moments ago to an appropriation by the legislature of New York state for the establishment of a state school of clay-working and ceramics in connection with Alfred university. In the interest of that school it has been a matter of great concern to me to secure a teacher of designing, or decorative art. I have made a study for some months of that question, visiting the art museum of Pennsylvania in Philadelphia, the industrial art school of that place, Pratt institute in Brooklyn, and Artist-artisan institute in New York city, the School of design for women, the Student's art league and many other art schools, for the purpose of finding an art teacher who would be skilful in such designing as is required for decorative work in pottery and terra cotta. The result of the investigation was a failure to find any one prepared to do exactly the sort of work that we wish to have done. I then went into the office of Mr Tiffany, the celebrated glass-worker in New York city, and asked him if from among his artists he could recommend a designer for our school. He said that it was impossible for him to do so; that in each case a designer had to be created out of the needs and circumstances of the case. After ascertaining just the character of designing that was wanted and that such a teacher could earn at first from \$1200 to \$1500, he said, "My dear sir, I should be glad to pay twice or three times that sum for any girl who could do such work as you want done".

Now, in reply to the question that was asked a few moments ago, I am compelled to think that students must be educated in industrial art in special schools; that it can not be done in the grammar or high schools as suggested by the previous speaker. It might be possible to establish in the public school of a large city a system which would, in a measure, be adapted to the particular needs of that city. Take the city of Trenton (N. J.) for example, which has an art and technical school adapted largely to the development of the pottery industry. In that school, supported by the city, the development of art in the interests of the pottery industry is partially successful, but you can not do the same thing in more than, perhaps, one or two other cities of this country. Because of the great pottery interests in the city of Trenton, it is possible to secure an interest and a fund for carrying on such art instruction in the public schools. It could not be done, I am sure, without this local interest. I believe that, while art may be developed in a general way in the public schools, there must be established schools at which expert training shall be given in industrial art, and it is to promote these various branches of education that our industrial training should be extended. I am intensely interested in the problem of industrial education; and I believe we are in a way to achieve for this state and for this country great results in industrial education. The line of work in which I am specially interested at present is the advancement of technical and art education in clay-working and ceramics, and the consequent development of the resources of this state and the promotion of American industries.

The state school just established at Alfred university has this ideal before it, and, with its department of ceramics, technology, graphics, and decorative art and correlated studies, is prepared to accomplish this end.

MANUAL TRAINING IN SECONDARY SCHOOLS

IN GENERAL, AND SPECIALIZED FOR BOYS

Prof. Charles R. Richards—The problem of organizing manual training for the high school is at once a simple and a very difficult problem. It is simple because the pupils of this age have reached a development where they are easily capable of effective work with tools, and the problem of arranging processes and constructions that can be mastered by such pupils is comparatively a small task. It is a difficult problem in that we are not yet able to define just what proportionate values should be given to self-expression and what to mastery of process. Economic and technical considerations emphasize the latter, while the whole nature of boy and girl cries out for the former as a vital element in all real achievement. These two elements represent the two essentials in manual training method. Without the one we have dead and dry formalism; without the other the work would become a chaos of crude and ill-considered projects, the execution of which would bring neither satisfaction nor discipline to the worker. These are the two sides of the manual training shield, each necessary to sustain the other and to obtain the maximum return to the worker.

To bring out the relations of these elements at the present time, it might be well to sum up briefly some of the significant points in the development of manual training in the high schools of this country. It is a well-known fact that manual training came into our public school system at the high school end. In 1876, the Imperial technical school of Moscow exhibited at Philadelphia a scheme of school shopwork in which the various elements of tool processes in various crafts were reduced to their elements and represented in typical exercises. The principles represented in this exhibit were shortly incorporated in the shopwork courses for the engineering students of the Massachusetts institute of technology; and, when the manual training high school came into being very directly afterward, these courses were ready to hand as practical schemes of shop instruction, and were adopted in

principle and almost in their exact form in these schools. The spread of manual training high schools in the next few years was quite rapid, and the same type exercise courses were adopted by each in turn. In this way, the practice of the manual training high schools was fixed on lines developed for and from entirely different conditions; on lines developed from the conditions of the technical and engineering schools, where the aim is to give a knowledge of materials, tools and processes, but which have no reference to the broader educational purpose that manual training represents in our schools. The dry bones of this kind of manual training are still rattling around in many of our school workshops, but happily they have given place in great part to work more truly adapted to the purpose of manual training in the public schools.

During the last half-dozen years, the practice of the high schools, following the lead of the work in the elementary schools, has been getting away from this stage of pure manipulation and coming nearer to the life of the pupils. It has come to be recognized that only when the pupil is working for an end that appeals vividly and directly to his interests can the mental and character-forming value of manual work be realized. Finished projects having a direct relation to the school life or the out-of-school life of the pupils have become the dominant characteristic in high school, as they have in elementary school manual training. Purposeful achievement has taken the place of mere manipulation, and instead of the barren incentive of so much work with tools the opportunity of accomplishing a thing worth doing is presented to the worker. This principle has brought manual training practice from a formal system of tool instruction to a point where it becomes a truly educative instrument—to a point where the pupil throws himself into the work with enthusiasm and spontaneity that can not fail to bring a life-long reaction in habits of seeing, thinking and doing.

Today we are taking one step farther. We are bringing into is expression work, wherever practicable, opportunity for self-expression, opportunities for creative work on the part of the in-

dividual. When this point is reached and not till then, we shall have completed the cycle necessary to bring manual training practice into complete accord with educational requirements. We shall have attained then, first the conception on the part of the individual worker, second the definite plan on which this conception may be realized, and lastly its execution. This last thought is by no means a simple proposition. The ability to create is truly the last reach of human faculty, and yet it is for this very reason perhaps the one we should aim to cultivate. True invention, in the sense of creation of a whole, while it should be given every encouragement, can, of course, be realized only to a limited extent. But this element may be encouraged and stimulated in many more practicable ways. It may be constantly fostered by developing from the class the form, structure and method of execution of the model. It may be given scope in the opportunity for selection among several models; and it may be brought into almost all of the work by encouraging individual ideas as to modification or form, dimensions and decoration of given projects.

It is the omission of these vital characteristics of true manual training work, or rather the failure to emphasize these principles, that seems to me the chief weakness of the present syllabus. As it stands at present, the syllabus, to my mind, is in danger of emphasizing nonessentials to the neglect of real essentials. If it be taken literally in its present form, it will be quite possible to fulfill its requirements by extremely formal and uneducative courses of work. It may be said in reply that these matters are only questions of method. To be sure they are, but manual training as an educational subject is essentially a question of method. Method is the very heart and soul of manual training. The educational result is not a question of how many tools have been used or how many joints made, but rather how much of personal achievement for a self-impelled purpose has been involved. I believe that it should be written large at the head of the syllabus that all exercises should be of such a character as to appeal strongly to the healthy interests of the particular pupils concerned, and that, wherever practicable, opportunities for self-expression should be afforded.

Beyond this point, a list of the tool operations it is desired to cover, arranged in sequence of difficulty, might be enumerated. Coupled with this list might be a few important principles of method, such as, the necessity for involving a variety of operations in each model, the fact that only a limited number of new operations should be introduced in any one model, and the principle that the introduction of any tool should be made in a manner typical of the use of that tool. Following this might be a suggestive list of models in which these operations can be incorporated. And this list, it seems to me, should be as broad and representative of varied school conditions as possible.

If manual training is to be a truly vital agent, it must be adapted to local and special conditions, and if a syllabus of this kind is to result in anything but a formal scheme, it must above all things be elastic and broad.

To take up some of the points in detail, I would call attention to the arrangement of the mechanical drawing schedule. As the syllabus is arranged, the sequence is an extremely formal one. The work begins with practice with the tools, including the most difficult in order to gain accuracy, then follows work with geometric abstractions, and last of all the concrete is reached in the working drawing. I should say that the reverse of this order would be far more natural.

The first year shopwork attempts too much as it is laid out. The amount of work reaching as it does to the making of a dovetailed box is very considerable for four periods a week. The bringing of wood-carving into connection with the constructive work is an excellent plan, but free carving is difficult and unsatisfactory without modeling, and it might be well to reserve this element for the second year, and confine the first year work to straight line carving.

In the second year course too much required matter is laid for the drawing. Drafting of machine details, I have found by sad experience, is not work well fitted for girls. On the other hand, turning affords hardly sufficient material for a year's course. Here it seems to me the benchwork could well be extended and

made optionally either the whole or part of the year's requirement.

The supplementary course in chipping and filing would certainly, as laid down, prove very dry and difficult for pupils of the second year high school age.

The course in sheet metal work, specified as an alternate course, would, involving as it does soldering and working of sheet tin, I am sure, prove very difficult and unattractive for girls; whereas a course in working thin brass and copper into bowls and decorated articles by chasing and repoussé treatment would fit in extremely well at this point.

I have ventured to touch on a number of points of detail, but, in closing, I would go back to what seems to me the essential requirements in a syllabus for manual training in the high school, viz, provision for self-expression, elasticity and breadth.

I would like to say a word in regard to the question which has been brought up here this morning, a question of the greatest importance and significance: how that technical training, which we are inevitably as a country moving forward to, shall be provided? The engineering schools and the higher scientific schools, already so admirably represented in our country, will, of course, furnish the engineers and the highly trained specialists who will serve as leaders in the industrial field, but the question here relates to the training of the craftsman, the designer and the industrial art worker. Mention has been made, in this connection, of manual training work in the grammar schools and in the high schools. I have a great deal of sympathy with the thought that was expressed by the first speaker, that manual training work, even in the grammar schools, should adjust itself to local conditions, taking account of the activities of a locality and representing its interests and occupations. But it seems to me that such work can never be more than preparatory in a technical sense; never more than general in its character; that, in other words, the manual training work of the elementary school will never be able to provide that technical training which has been discussed this morning, and which has formed such an enormous

factor in the development of the German people. Nor do I think the manual training possible in our high schools is going to provide such a training. The manual training of our high schools will reach much nearer to the actual industrial operations represented in practice than the manual training of the elementary schools, will reach much nearer to the actual requirements of life; but, if that work is to stand as a broadly educational element, benefiting alike a large range of pupils, it will very quickly meet its limitations on the side of specialization, and specialization is the very heart of technical training. We have, before us, the development of two classes of schools of the secondary grade, both essential to our fullest development as a people—one the high school with manual training, and one the technical school; and, I believe, the development of the manual training school will be as a general school, a school which will do much to bring industrial work and industrial art work nearer to our people as a whole. But beyond that, the need for distinctly technical education must be met in schools apart from the manual training high school, met in special technical schools, which at least in the near future can hardly come within the domain of our public school work.

SPECIALIZED FOR GIRLS

Mrs Alice P. Norton—Not only college education but training in the secondary school has, up to this time, stood for discipline of mind. The recently inaugurated president of one of our great universities said, in a late address on "university ideals", "The ideal education is not an agency for teaching a man particular facts that are going to be of service to him. . . The use of the fact is to get at the principle; when the principle is secured the fact may be forgotten. . . Sound education results not in cramming but in discipline". We are all willing to accept this as a legitimate ideal. But, when we read in the same address the farther statement that "the higher institutions of learning should undertake to teach theory rather than practice, methods of reasoning rather than methods of doing things"; when we remember how closely the secondary schools follow the lead of the colleges, then, turning to the great industrial schools of the

day, see their marvelous development and their thousands of students, we feel that between these two ideals there is a great gulf fixed, that one half the world is gaining ability to do, and the other half to think.

The new education has undertaken to bridge this gulf. Taking as its watchword "education for character", it perceives that training for social life, for citizenship, implies not only clear, able, definite thinking, but the power to translate thought into action; not only comprehension of underlying principles, but ability to apply these principles to different conditions. An exponent of the new education says: "We must regard culture as chiefly valuable for the ability it gives a person to use wisely his powers and resources, whatever they may be". Ability to do is as important as ability to think. Efficiency of the individual in social relations is the legitimate end of training.

The so-called disciplinary studies, if worthy of their name, should give this effectiveness, and to a great extent they do. The college man or woman is an acknowledged power in the community. The boy or girl from the high school commands a better position because of his training. The reasoning power and judgment developed by the study of Latin and mathematics come into play in every relation of life. On the other hand, there has been growing complaint that the power given by this training is not so great as it should be. The average student of mathematics is utterly at a loss if required to apply his knowledge to the solution of a chemical problem. The pupil in chemistry is helpless before the simplest application of his science to affairs of everyday life.

In the past the training of the schools was supplemented by the activity of the young people in the home. The boy on the farm, the girl taking her part in the duties of the home were in less need of manual training than the child of today, who less and less shares in these activities. The introduction of manual training, then, finds its justification in the changed conditions of modern life and in the partial failure of the academic training to fit for practical life.

In deciding on the subjects to be introduced into the public schools under the head of manual training two factors must be taken into account, first the educational value of the subject and second its relation to life, or its practical and social value. The work which has not educational value has no place in the public school. Method, here, counts for even more than subject-matter, and we are slowly learning that the practical thing may be presented in a highly educational way. The work must be well done to have its full value as training. The teacher of cookery who complained that the school authorities cared only for the lightness of the muffins and the sweetness of the bread was as mistaken as they, if she did not care for these results.

The work which has been given to girls as manual training has usually been some branch of home science, specially cooking and sewing. Compared with the wood work given to the boys these are inferior as true "manual" training. Deftness, delicacy of touch, dexterity in manipulation are given, but of strengthening and real training of the muscles there is little. Neither cooking nor sewing gives the accuracy gained in wood-working. The "dish" put together in defiance of rule and theory sometimes comes out well, and the cloth is more amenable to "stretching" than the solid wood. In the secondary school the work which can most profitably be done is rather applied science than manual training. This work for the girls, both in the elementary and secondary schools, should be supplemented by part of the course in wood-work given to the boys.

The social value of the work in home science can hardly be overestimated. A saloon keeper in one of our cities complains of the decline of his business since cooking was introduced into the public schools. The subjects introduced into the secondary schools may be so taught as to give each pupil a higher and better ideal of home life than she would have gained in any other way. The idea that domestic science, home science, or home economics, whatever term we may use, means cooking and sewing alone is far from the truth. It is the application of all sciences, of sociology, psychology, physics, chemistry, biology, as well as of all art, to the

problems of home life. It deals with the study of the home itself, its evolution, its function, and its relation to other social institutions; with the problems of the family; with the house, its relation to the home, its architecture and decoration, the sanitary conditions which affect the welfare of its inmates; with the whole vast food problem and its effect on human energy, and on the "labor power of nations"; with clothing, in its hygienic and esthetic aspects; with the training of the child, physical, moral, intellectual; with the division of the income and the financial management of the home.

Not all of these topics, of course, are to be introduced into the secondary school. Many of them belong to the college or professional school. A satisfactory course in one high school has included a year of food study with cooking, a year of general chemistry with special attention to its applications to the household, a year of the study of the house, including its situation, plan and general sanitation as well as its furnishing and decoration, and a year of "household biology", including the study of yeast, molds and bacteria, simple emergency work and home nursing. The course is completed with a few weeks' study of the economic problems of the home.

This course, adapted to somewhat peculiar conditions, would need modification for another school. In no work perhaps is it more necessary that the course should be adapted to the special needs of the particular pupils under instruction. As a rule, however, it is the child in the elementary school who will take the most interest in the housework, the cleaning, the laundry, while the high school girl will care more for the applied science and art. If such a course be given, it is specially necessary that it be supplemented by the true manual training in the form of some kind of wood work.

Prin. Charles D. Larkins—I think possibly I may be able to add most to this discussion by attempting to answer the question that I presume most of those not directly engaged in manual training work feel inclined to ask. The question is, what becomes of the boys and girls who have taken a course in the manual training

high school? I can answer that question only by speaking of the school with which I am connected, and telling you what I have found from the experience of that school. Hence what I shall say to you will be more or less rambling in its nature. It is perhaps well to say at the beginning that, so far as I know, that school is the only public purely manual training high school in the state of New York. It is a high school because exactly the same requirements for admission are exacted there as in any other high school in Greater New York. It is a purely manual training school because every student who enters it must take the manual training work. He who chooses to avoid the manual training work must necessarily go to some other high school. The school was organized in February 1894 for boys only, but, on account of the number of applications by girls to enter the school, girls were admitted in February 1896. At the beginning of the present term in February there were 750 students on the register, of whom about 350 were boys and 400, girls. There are three courses—what is known as the science course, taken chiefly by boys, particularly by those who wish to pursue work in technical schools or in scientific lines; a liberal course, taken chiefly by girls and specially by those who wish to enter the normal schools and the city training schools; a business course, taken by those who wish to enter business life immediately after graduation from the high school. Of these courses the science and liberal courses are each four years long at the present time, though at the time of which I shall speak to you chiefly there was only one course, what is now the science course. The business course is three years in length. The school is recognized by the regents as a high school, the same as the high schools with which you are associated. For boys, the manual training work comprises the first five months, which we call a term, eight periods a week of 50 minutes each in joinery. The second term or second half-year, the time is divided equally between forge work and wood-turning. The third half-year the same amount of time is divided equally between forge work and pattern-making with a very little illustrative work in molding. The fourth half-year

consists of sheet metal work, taking the form of both tinsmithing and repoussé work and wood-carving. During the last two years some of the boys are given printing. Now it may be considered a misnomer to call printing manual training, but you will understand that we do not call it manual training.

The girls throughout their course have for the first term plain sewing, the second term Venetian iron work and garment-making, the third term repoussé work, with elementary lessons in tinsmithing, and garment-making, the fourth term wood-carving and millinery. From that time on, usually about a year, they take either advanced dressmaking or advanced millinery, the girl having her choice. That gives you something of an idea of the school.

I want to speak particularly of the first class, which was graduated in 1897. There were 41 men in the class, but no women or girls. Of these 41 the teachers estimated the ability about as follows: seven were ranked as poor, 17 as medium, 16 as good, and one as possessing unusual ability. Of these 41 men, 11 went to college, three taking courses in arts, two in architecture, one in mining engineering, one in dentistry, five in mechanical engineering and one in civil engineering. Of the remainder, there are four who are draftsmen, one the foreman of the drafting department of the New York telephone co., a boy who is now between 20 and 21 years of age. Another is a draftsman at the proving grounds at Sandy Hook, in the employ of the United States government. I ought to say that he began his work as draftsman, but I will show you later that his work has been changed. There are five who have clerical positions, one head of the contract department in a pattern-publishing establishment. One is a stenographer and one a bank clerk; two are bookkeepers; two are studying law; three have selected mechanical engineering as their profession and have chosen to go through the machine shop and the drafting department rather than to go to college. These three men are now employed in machine shops and drafting departments. There are three who are supervising the work of other men in mechanical departments; one has entire charge of a sash and blind estab-

lishment employing 25 men. He has entire charge of the men, and in addition makes the estimates, lets the contracts and supervises the work of those men. He lacks three months of being 20 years of age. Another is employed with the Hoe printing-press concern, and the third is supervising the work in construction of telephone lines. There are two employed as architects or architect's draftsman. One is a teacher, one a dentist, one is an electric engineer, and has been employed two or three years with Thomas A. Edison in his laboratory; one is a civil engineer, two are salesmen, one in a music store; two I do not know what has become of; one is unemployed; and one dead. There are five graduates of the school now employed by the New York telephone co., and the company has made application this term for three more men. Four are employed by the Loomis lumber co. The Loomis lumber co. refuses to accept a boy who has not been trained in a manual training school; indeed I have read their advertisements where they were advertising for boys of that kind. Two are employed by the Garvin machine co., and several, I do not know how many, by the Western electrical co.

Of the 41 men of whom I have spoken, one receives a salary of \$8 a week. I want to say in this connection that he has had five or six positions, and I think probably will have to find another very soon. There are five who receive salaries of \$10 a week, one \$10 a week and commission of 50% on all the business that he brings to the firm. Four are receiving salaries of \$12 a week, one \$15, one \$16, and one has had variously from \$22 to \$35 and expenses. There is one employed at \$600, one at \$625, one at \$800, one at \$900 and one at \$1400 a year. The salaries of the others I do not know.

Of the graduates of the school, many have gone to college. There are students in five courses at Cornell, in three courses in Columbia, in Adelphi, in Perdue, in Rutgers, in New York university, in the Long Island medical college, in St Francis Xavier college, in New York dental college. There are several in the Jamaica normal school, and many in the Brooklyn training school for teachers. Of the girls, some are in Cornell, in Adelphi col-

lege, in the New York training school for teachers, in the Jamaica normal school, in the Brooklyn training school for teachers and in Pratt institute technical departments.

We have had three boys from one family, graduating in three classes. One of them is now employed by the United States government in the quartermasters department at Manila at a salary of \$1400 a year. Another is employed as a bookkeeper at \$12 a week. The third is a reporter on the *Brooklyn daily eagle* on a regular salary unknown to me.

Of the graduates of the school, one is editor of a trade paper devoted to the export trade in New York. One is a reporter on the *Brooklyn daily eagle*, as I have told you, and a girl is a reporter on the *Brooklyn daily times*. There are three in the employ of the city government. One is a draftsman, and I might say in this connection that all three have been required to pass the civil service examination; one is a private secretary in the health department; and another a private secretary in the corporation counsel's office. We find that boys of good ability succeed after they have gone through a manual training school. If they have not good ability, they do not succeed. We find that they are much sought after for certain lines of business. I have told you that there is one boy unemployed. Of the 250 graduated from the school since it began to graduate students in February 1897, that is the only one that I know of at the present time who is unemployed, and I do not know of a member of the class that was graduated last night who is not provided with a position suitable to him. I have some letters here, and I will read you extracts in order to show you what becomes of these young men, what they are doing. One writes:

I have been teaching in the public schools of New York, borough of Manhattan, for the past three years. Our course of study comprises all elementary subjects, and my salary is \$900 a year with an annual increment of \$105.

Another boy says:

Yours of the 7th received. In reply to your inquiries, would say that I am at present employed by the ordnance department of the United States army at the Sandy Hook proving grounds as assistant at experimental firings. My salary is \$800 a year.

As you know, all the guns and carriages manufactured for the United States army are sent here for proof. Here also take place tests of powder, projectiles, new inventions, in fact all experimental work in regard to seacoast and field armament. My duties now are chiefly in the instrument room. I do all the manipulating and reading of the various instruments for the recording and measurement of velocities of projectiles in flight, pressure of the powder gases within the gun, etc. I also do what is known as "star gazing", i. e. taking microscopic readings along the inside or bore of the gun before and after firing to determine if the diameter has undergone any variation due to powder pressure or passage of the projectile. Also compute targets and range tables, etc.

That boy is between 20 and 21 years of age. He has never yet voted. Another says:

I am employed by the New York telephone co. as chief draftsman. My duties consist in laying out the work for the nine draftsmen and two blue print boys under me. I do but little drafting. Where a particularly difficult job has to be done, I sketch it out and have some one do the drafting. In addition, I am responsible for all the drafting done by the company so far as its correctness is concerned. I am given directions as to what the apparatus is needed for, etc., and am expected to turn out the work to conform to such specifications. There are also more or less details to be attended to, such as keeping the records, etc.

That young man voted for the first time last fall. Another says:

I started work in the fall of '97, the year of my graduation, in the position of draftsman for an engineering and surveying company. While I was with this concern I averaged a salary of \$15 a week. I did surveying during the whole of the year 1899, and was appointed a city surveyor by the board of aldermen of New York city. My duties were during the latter half of 1899 in managing two field parties. I then commanded a salary of \$18. I had during that year become proficient in surveying and drafting. The year 1900 brought me a new field, and I left the old concern and started in railroad engineering. My first venture was in Mexico. I was there for a little over three months. I went there under contract of \$35 a week and all my expenses. The trip was for the J. Pierrepont Morgan syndicate. On my arrival in New York I went to work for my present employers. My salary amounts to \$22 a week. I expect a new position with the Melan arch co. of Chicago to travel and give estimates on all classes of engineering. They are the constructors of the Potomac river bridge.

Another says:

My duties call for general architectural drafting. I have sole charge of ornamental and structural design in detail, also superintendence of buildings, together with a general share of the regular office business.

Another says:

I am in the employ of R. Hoe & Co., manufacturers of printing-presses. There are at present 1700 men employed in the shops, 100 in the drafting room and 100 in the office, and everything is most carefully scrutinized. It would be rather difficult to define my duties, as the work covers a varied field. Part of my time is devoted to drafting and recording the work and looking after the piecework on the numerous machines manufactured; the rest is spent in the 40 manufacturing and erecting departments, keeping track of work on certain machines. I do no manual work, and am changed about quite often. I am gaining a very good knowledge of the business. When I secured the position, I was assured that the main reason why I was given the preference over a number of other applicants was because I had received a manual training education. The position has usually been held by men who have served their time as machinists and then gone through the routine work of the office. I receive but \$15 a week, still I think this is very fair as I have only been here since February of this year. Men in the office who have received only an ordinary education without manual training have little chance of earning more than I now receive, while my chances for advancement are quite bright.

Another says:

I have been employed with the above firm for the past two years; am now assistant cashier, and have charge of the contract department. The contract department is the most intricate and detailed one in the business, and is a very responsible position. The contract department employs four men.

I read these letters for the purpose of showing that a manual training course does not necessarily confine a boy to work with his hands. Of those of whom I have told you, and I have tried to give you an account of every one of the 41 men in the first class, there are only three who are actually employed at any kind of mechanical work, and all three have taken that line for the purpose of perfecting themselves in mechanical engineering. The boys go into as many and as diversified occupations as boys do from any other school. We think in New York that a boy who

gets \$12 a week and is in a good position where there is a probability of advancement when he is 21 years of age is doing very well indeed.

Prin. E. C. Colby—It is gratifying to know that manual training is at last receiving just recognition. In this age of progress in science and its application to industry, demand is made for a more technical and practical education. The century just passed has undoubtedly witnessed more improvements and inventions than the 18 centuries preceding. Can not this progress be attributed in part to the kind of education which is given our children? Would it not be safe to say that the teaching of industrial drawing during the last century has affected the pace of events? Drawing was introduced as a necessity, and was made compulsory in many states on the ground of its utility and its educational value. It was demanded that we might keep pace with other countries, and it is now a vital part of the school curriculum. Manual training has been introduced and used as a culture subject more or less successfully in all grades for several years. Experiments and tests have demonstrated its value. Not only is it considered desirable, but the conditions existing today demand it.

The state of New York is to be congratulated on entering the 20th century with such an important advance in the department of education. The board of regents should receive the praise of all for the preparation of a syllabus which places the subject in the list of high school studies. Much has been said in support of manual training; it needs no farther argument to defend it. Now that the syllabus has been prepared and the work begun, it is our duty as teachers and educators to carry it on successfully.

So wide a field is covered by the term manual training that many interpretations are given to it. Nevertheless, developmental is the one word which may be used as a synonym for the various definitions given by those who understand the significance of "the harmonious cooperation of the head, heart and hand." The questions which arise relative to the details, methods of presentation—class work or individual—sequence of exercises, and

the time to be devoted to the subject, must be governed by the conditions existing in the various schools. Today our subject is manual training in secondary schools, and an outline of a course of study has been prepared. As all teachers do not have the same conception of the subject, or work exactly alike, it will be natural that the work of different classes shall vary. However in educational manual training teachers may differ regarding details; the means, aims and results sought for are alike.

In planning and carrying out a course in manual training, other things must be taken into consideration, for it must be planned as part of a whole system. Correlation and the development of the pupils' powers mean that the teacher should be conscientious and brave enough to devote his energies more to that which is invisible, for the time being, and less to the preparation for the annual exhibition. It should not be tacked on as an adjunct for the purpose of giving the boy and girl dexterity in handling a few tools, in making bread, or in fashioning a garment.

I wish to emphasize a few points. First, that the close relation of drawing and manual training should be recognized. It is true that drawing forms a part of manual training, but the point I wish to make is that the teachers or directors of drawing and manual training in the same school should work together and help each other. Second, that great care should be used in selecting and arranging the exercises. Each model should have two aims. One is that of the pupil, which is the making of a useful article; the teacher's aim will be to lead the pupil to comprehend the usefulness of what he is taught in other subjects, or, perhaps, the teacher may be aiming, by means of the model, to emphasize the worth of some virtue. As interest is a great factor in education, the models made should be such as will awaken the interest, specially of the younger boys. The exercise should be a completed article. Some exercises should require exact reproductions, thus teaching exactness, truth, concentration. Others should require the pupil to think, use his imagination and give him opportunity to reveal originality. This will teach him self-reliance and develop his creative powers. Nothing will give a

boy more satisfaction than to see the finished result of his own effort, the product of his own hand and brain. It also increases strength and confidence, and impresses on his mind the fact that every good that is worth possessing must be paid for in strokes of honest effort. This is not to say that the child may make anything his fancy dictates. All selections should be guided by a wise and competent teacher, who can make such impressions as will lead to reflection and expression. Third, that a worthy object should be aimed at. Some teachers see only the practical side of the subject. To them the main object is to acquire practice in the use of tools and to make a set of models or useful and ornamental articles. These are desirable and necessary; they are the visible results. But the most important results are the invisible, which means discipline, training and development of the mental, moral and physical powers of the child. Someone has well said: "The product is not the finished model, but the complete boy". As the other high school studies broaden the mental vision and train the mental powers, so manual training develops observation, strength of the will and steadiness of purpose, and adds to these the training of the eye and hand to execute the decision of the mind.

Manual training is the keystone that holds in place the subjects which complete the educational structure, and our system of education now includes, as it should, all divisions of knowledge, so that the heart, the mind, the eye and the hand may be properly trained, in order that the person may be ready to meet or cope with the emergencies of life. "A sound heart which throbs for God and humanity is a good thing; a sound heart and a clear, strong head is better; but a sound heart, a clear head and a skilled hand gives us the nearest approach to a perfect man."

Prin. Vinton S. Paessler—The search-light of educational investigation is today intensely active in every direction. Educational agencies are growing exceedingly comprehensive. More than ever before, are the commercial and industrial success and prosperity of America the direct result of efficient educational effort and preparation. Educational responsibility, while growing greater, is growing complex.

Today a liberal education is the birthright of every boy and girl. Right-doing is recognized as being just as essential to the intellectual, physical, and moral development as any one of the "three r's". "Actions speak louder than words" to the soul within as well as to the world without. The teaching of imitation is a tremendous influence in molding character. Realization takes place through what Baldwin calls the characters of the will—desire, attentive deliberation, and effort. "Example is stronger than precept", and manual training teachers believe in the power of good examples. The aim is not so much information as formation, not so much to secure expression as impression. Sensori-motor education seeks to coordinate thoughts and actions, as every mental state is understood to be a complex of sensory and motor elements, and influences which strengthen the one tend to strengthen the other also. Intensity of purpose increases attention, and attention increases intensity. "Attention is the mind's great accommodating agent." When invited by desire it works with a will.

An understanding appreciation of the needs and capacities of pupils is necessary to a proper educational administration. Manual training assists in the self-realization of the individual, by diverting the Niagara of youthful energy to turn educational wheels. Exercise is the law of growth and development. Life's greatest accomplishment is the appreciation of life, to have that power of concentration and purpose, that power of endurance and self-confidence, which prevails. No crippled, dwarfed, starved soul can ever expect the best gifts of life, or heaven's choicest blessings. Man was not like the beaver, furnished with a trowel, but with the tool of all tools, the human hand, and we are enjoined to use it with our might.

Savonarola said: "There are no secret processes involved in great achievements". A stolen college gong was found in the grass with this on the tag, "Root hog or die". Opportunities do not furnish spurs. "Whatsoever a man soweth, that shall he also reap" is literally true in every field. Inactivity can not prepare the on-coming generations for their responsibilities. "What can you do?" is a larger question than "What do you know?"

"We learn to do by doing". Such preparation yields assurance, invites confidence and makes success doubly sure, giving ability to think more clearly, execute better, decide more wisely.

Manual training seeks to multiply the points of contact between the life within the school and the life without the school. The preparation of the former should be an introduction to the opportunities of the latter. The pupil who does not graduate from the secondary school should have equal consideration with the one who goes on to college. Both are to be equipped for self-sustaining, self-respecting, law-abiding citizenship. The great majority of our voters have never done the secondary school work. Rightly directed activity largely solves the question of discipline in school and deportment after school days are over. The germs of social disorder do not find their birth in the home where lives the spirit of self-help, self-culture, and self-discipline, but in the home of ignorance, where incompetency and its concomitant evils rule. Unoccupied in a profitable way, two hours a day less for the laboring world is just two hours more in which to gather fuel for the fire of indolence and crime, poverty and distress, anarchy and ruin.

Not long ago a teacher was heard to say that we ought to pray more than we do over half-starved, poorly clad, neglected boys and girls. Their home atmosphere of ignorance, listless indifference, and dissipation is too well known to need description. What this class needs most is that education which inculcates habits of industry and thrift, and qualifies for personal success and direct usefulness. Quickness of practical perception and ability to do are desirable in both men and women. Today domestic economy is a science and home-making an art that no woman should be without, if the coming generation is to be favored in health, wealth and the pursuit of happiness. In this sense the influence of woman is as broad and far-reaching as that of man, and her education most important if the home atmosphere is to make for right living and good citizenship—for

The reason firm, the temperate will,
Endurance, foresight, strength, and skill.

Manual training as a part of our educational system emphasizes the dignity of intelligence and skill and clothes honest labor with a garment of self-respect, the first qualification necessary to humanity and civilization. A knowledge of the natural laws of material things is as necessary to the blessings of liberty as a sound body and mind, having well trained senses, to the development of character.

The end of education—always the same—is to bestow sanity in body and mind, so that when the shocks of life come, as they often do, there will be some hope of holding together. The means to the educational end must change with the demands of progress, if it should not lead by an intelligent forecast and preparation to greater and better things. A correction of present evil anticipates improvement. The unappreciated, unused talent laid up in a napkin will bring no more today than it did in the parable nearly 19 centuries ago.

The great occupation of life is “making something”. The normal child early catches this inspiration, and fills every waking moment with activity. At a later vital stage, the adolescent, the statement has been made that the business of the world is largely done. With this period of rapid development in body and mind, of intense activity, our secondary schools are occupied. That system of education which does not directly use this energy, dissipates much of the precious stuff out of which life is made. Much of success depends on matter and method; likewise on the ability of the teacher thoroughly to adapt the subject to the capacity of the taught. This, however, is true in all teaching. That teacher does most for her pupils, who leads them to accomplish the most for themselves. This is their only hope of liberty and independence.

The question of equipment is a large one. Great advancement has been made in manual training schoolhouse architecture. A plan and a purpose for every thing is the rule. Any other course is haphazard. Much depends on the number to be accommodated; the course of study; the number, size, position and convenience of rooms; the multiplication of edged tools, and parts of such

tools, where several classes use the major part of the same equipment. All should be so arranged as to admit of fixing individual responsibility, for the teachers as well as pupils. Special attention must be given to arrangement for good light, and in some cases, freedom from noise and possible vibration.

Economy of time, energy and patience call for the best of everything, the best tools and instruments for every department, so arranged that there may be a minimum expenditure of time in getting, using and restoring to the proper places. Convenient places for storing articles while being made, or when completed, is not a small consideration.

Tuesday afternoon, 26 June

LIBRARIES AS A SOURCE OF INSPIRATION

PUBLIC LIBRARIES

Frederick M. Crunden—I suppose most of my hearers read, probably with varying degrees of satisfaction or dissatisfaction, approval or disapproval, an article on "School reform" which appeared in the May *Atlantic*. While I am not in accord with the writer's extreme views in ignoring the results of child study, while I have a due appreciation of the value of psychology as applied to education, I found the article as a whole very enjoyable reading. It gave me, indeed, two distinct pleasurable sensations. First, it showed me that I was innocent of a crime, of which the pervading influence of pedagogic literature combined with a sensitive conscience had led me to confess myself guilty. It served as what the attorney for the defendant would call a demurrer, admitting the facts but denying the offense. Second, it gave able support to a favorite and long held theory regarding the essentials of good teaching.

What created in me a sense of guilt was the volume of disquisition on pedagogics that of late years has come to my notice. I reflected with shame on the fact that in early life I had ventured to teach in grammar school and high school and college without having taken a course in pedagogic psychology, without any other knowledge of paidentics or "paidology" than their evident etymology would give. I had farther cause for regret

in my belief that most of my teachers knew little and cared less about these nowadays much discussed and insistent subjects; and now comes Prof. Münsterberg to relieve me of this burden of regret and remorse and to revivify and reenforce my ancient faith that the essentials of good teaching are sound scholarship, broad culture and personal enthusiasm. Scholarship alone is insufficient. It is inadequate except as the basis of an enthusiasm that inspires and energizes the pupil. Among my teachers, the most scholarly were to be found in both extremes, the best and the poorest. The best teacher I ever knew was not a man of profound scholarship. He was very young, a farmer's boy who had struggled through a small western college. But he possessed the natural qualities of sympathy, tact, judgment and above all the power of communicating his own enthusiasm. The source of his strength and his influence over his pupils was not the study of pedagogic psychology; but, besides possessing those "priceless personal gifts which are wholly incommunicable" and which mark the born teacher, he drank constantly and deeply of the inspiring fountain of world-literature; he communicated this inspiration to his pupils and led them to the original sources, to the source of all inspiration, the stored-up thought of the ages — the library. He supplemented his own scholarship by the scholarship of the world's sages: he insured the continuance, if not the permanence, of the enthusiasm he imparted by sending us to the sources from which he himself drew it. He connected the library with the school; he taught us, indeed, that the school signified but little except as a preparation for the library.

When the question of a special tax for a public library building was before the voters of St Louis, a catholic priest urged his congregation to support the measure because the public library was the only agency through which the masses could obtain a good education. He said that inasmuch as most children, of necessity, left school between the ages of 12 and 16, the most important thing that could be given them while in school was a love for books, and that the quality of the education they received was to be tested by its success or failure in imparting to them a taste for good reading.

This is a theme on which I have been speaking and writing for 25 years; and when I was engaged in teaching I put into practice the theory I have never ceased, and never shall cease, to urge.

It is extremely gratifying to me to find my views on the supreme value of a taste for good reading in elementary education forcibly advocated by so eminent an educational authority as Pres. Eliot. I could wish for no stronger statement than the following from one of his published addresses:

From the total training during childhood there should result in the child a taste for interesting and improving reading, which should direct and inspire its subsequent intellectual life. That schooling which results in this taste for good reading, however unsystematic or eccentric the schooling may have been, has achieved a main end of elementary education; and that schooling which does not result in implanting this permanent taste has failed. Guided and animated by this impulse to acquire knowledge and exercise his imagination through reading, the individual will continue to educate himself through life. Without that deep rooted impulsion he will soon cease to draw on the accumulated wisdom of the past and the new resources of the present; and as he grows older, he will live in a mental atmosphere which is always growing thinner and emptier. . . . The uplifting of the democratic masses depends on this implanting at school of the taste for good reading.

In Charles Dudley Warner's latest novel, a youth who goes to college from a first-rate preparatory school, expresses to his classmate who was not highly "fitted" but had enjoyed the broadening influence and the inspiration of a well-selected library, his admiration of the latter's extensive information and his regret at his own deficiency and concludes by saying: "I might have known something, too, if I had not been kept at school all my life". It was not, however, the lifelong attendance at school but the absence of the library that put him at a disadvantage. If his teachers had used the library in connection with the school his college entrance examinations would, at least, not have suffered, while his college course would have been much more fruitful and enjoyable. If the favored few who have four years of the broadening and inspiring influence of college life find it necessary to supplement the textbook and the oral instruction of their professors by that of the college library, how much more do the masses who leave school at 12 to 16 need the instruction and the inspiration of the public library, the people's university?

In that delightful old comedy, the *Rivals*, Sir Anthony Absolute expresses his opinion of a library in these words addressed to Mrs Malaprop:

"Madam, a circulating library in a town is as an evergreen tree of diabolical knowledge. It blossoms through the year. And, depend on it, Mrs Malaprop, they who are so fond of handling the leaves will long for the fruit at last."

This, however, was said of a library conducted purely for private gain. It was said, too, in an age when, as Mrs Malaprop put it, "too much knowledge did not become a young woman", when surface accomplishments supplemented by "a little ingenuity and artifice" were considered a sufficient educational outfit for the gentle sex. Sir Anthony is certainly consistent to the last degree, for he traces the cause of Lydia's perverseness to the original sin of teaching her the alphabet: "All this is the natural consequence of teaching girls to read. Had I a thousand daughters, by heaven! I'd as soon have them taught the black art as their alphabet."

But in the first speech I have quoted, the irascible old gentleman pays a forceful tribute to the power of the library and uses an appropriate figure to express the constant character of its influence. The public library of today is truly an evergreen tree, which, like the orange, blossoms and bears fruit throughout the year. Its leaves delight the eye with their beauty; its blossoms diffuse the fragrance of the spirit and make the air redolent with reminiscence of humanity's best moments; its fruitage is the avatar of the oversoul, the body and blood of past heroes for the nourishment of the world soul of today and the inspiration of greater heroes that are to come. But the world does not need greater heroes so much as it needs new ideals of heroism. Every age has had its idols of the hour whom it worshiped and its prophets, saints and martyrs at whom it cast stones, with which later generations erected monuments; and it behooves us of the present age to consult history and consider carefully lest we too make hostile contributions to future monuments. What the world most needs is not the creation of giants or demigods—as Regent McKelwaysaid last evening, "A great people is better than great men"—what the world needs is not the creation of giants and demigods, but the elevation of every individual soul to the full stature of manhood. This the university can not do, for it reaches but a small fraction of the people; the church can not effect it, for many reject its ministrations; the newspaper fails to realize its enormous possibilities in this direction because it is

on a purely commercial basis. The public school *begins* the work; but that is all it can do. The public library is the only instrumentality that can reach all the people and continue to exert its influence on them through life, with no taint of commercialism, with no suspicion of self-interest, with no bias of religious, political or social partizanship. It is a forum in which all sects and parties, all convictions and negations, have a hearing. Above all, it is the fountain source of inspiration to all that is highest and best. To attempt to prove by argument or adduction of facts the inspirational value of the public library would be like proving the power of wind or the fructifying influence of the sun.

If there is any thing on earth that is a perpetual and all-reaching, all-potential inspiration, it is the great book. As a worthy citizen of this state says in a recent work, "The direction of an age comes to it often from the closets of its students or from the graves which seem to have sealed their speech. Thence the book, the still small voice which speaks from silence unto silence, carries thought into the wills of men. This is the real use of a book: it kindles a flame, that from its light other lights may be lighted forever". It is more than the breath of the orator, with all his flame and fervor, because his voice can reach but few, and the sensation can not be repeated except through the printed record of his utterances. It is more even than the force of a noble life, powerful as that is for those who come into personal contact with it, for this can directly reach even a smaller number than the orator's voice; and the story of a noble life told by a literary artist may be more impressive in the narration than in the actual living. We do not always know the inward nobility of our daily associate; we are unaware that we walk with angels till they have departed; we meet heroes without recognition in the flesh till we have learned to know them in books. Lincoln sustained the spirit of a nation in its darkest hour: he left his impress on the history of his time; but the dignity of his character, the true worth of his life, was not appreciated till the printed page noted his death and recorded his virtues as an inspiration to future generations. Great as was the work he accomplished, it is a question whether we could not better give up that than lose the inspiration of his life and character.

Since honor from the honorer proceeds,
How well do they deserve, that memorize
And leave in books for all posterities
The names of worthies and their virtuous deeds;
When all their glory else, like water weeds,
Without their element, presently dies,
And all their greatness quite forgotten lies,
And when and how they flourished no man heeds!
How poor remembrances are statues, tombs
And other monuments that men erect
To princes, which remain in closed rooms,
Where but a few behold them, in respect
Of books that to the universal eye
Show how they lived; the other where they lie

Now, how is the inspiration of heroic example to reach the people of today and the children of on-coming ages? I see no other instrumentality than the public library. It is only through the public library that the beneficent influence of good literature and the power of noble example can be felt by all the people; and it is only through the universal extension of this influence that the race can be enlightened, uplifted, spiritualized, humanized. A nation is like a railway train, which can go no faster than the hindmost car.

The most intense individualist must admit that the individual can not be developed except in association with his fellows. He can not be civilized, he can not be humanized, till he is socialized. He is partly socialized, developed to a certain degree, by contact with the life of his time; and *that* is the creation of the social activities of all previous ages, transmitted by books. But to complete his socialization, to bring it up to the line that marks the farthest advance of his age, he must have *direct* contact with the cumulated results of socialized effort in all human history. This is possible only through the library and for the vast majority only through the public library. The library is the reservoir of the common social life of the race. It is at once the accumulator and the transmitter of social energy.

And what is the purpose of all human activity? What is the object of all man's toil and endeavor? What has been achieved by human labor through countless centuries? The individual aims at personal happiness; but unconsciously he works for the development of character. In lowly life he fights for a livelihood; in higher stations he contests for a career; in all ranks the last and highest outcome is character. Society struggles blindly along the upward path of evolution. Consciousness of humanity is a

recent inchoation, an embryo of late creation. Its development, with all the beneficent results therein promised, depends on popular education, not on the ascent of the favored few to loftier heights, but on the lifting up of the great mass of humanity to an understanding of the significance of life, individual and social.

For this work there is no agency so effective as the public library. What the varied activities of the world are unconsciously and indirectly doing, the public library is directly and consciously hastening. Through it the pages of history teach to the present—to all who have the making of the future—the lessons of the past. It brings the ignorant into contact with the sage: its biographies of saints and heroes fire the youthful mind with a lofty ambition, a noble enthusiasm: its silent, but eloquent, teachers accompany their thousands of pupils into the privacy of their chambers and there in their most susceptible moments talk to them on the most sacred subjects, and instil into their minds and hearts high ideals and pure sentiments that could find entrance at no other time and through no other channel. This is the true work of civilization. As a powerful factor in raising the standard of general intelligence, the public library counts in the promotion of material prosperity. But material prosperity is not an end; it is only a means to the end and object of all human endeavor, a higher social order, a purer, happier people. As Channing says,

The glory and happiness of a community consists in vigorous efforts, springing from love sustained by faith, for the diffusion through all classes of intelligence, of self-respect, of self-control, of thirst for knowledge and for moral and religious growth . . . It is a plain truth, and yet how little understood, that the greatest thing in a city is man himself. He is its end. We admire its palaces; but the mechanic who builds them is greater than the palaces . . . You talk of the prosperity of your city. I know but one true prosperity. Does the human soul grow and prosper here?

Or, as Ruskin tersely puts it, "That is the richest community which nourishes the greatest number of noble and happy souls."

No people can be noble or truly happy whose energies are absorbed by material advancement. Happiness and nobility of soul are alike incompatible with exclusive interest in the material and the transitory to the neglect of the spiritual and the eternal. The pyramids have come down to us through 50 centuries and

are taken as the type of permanence in the material creations of man. They excite the admiration of every one who sees or reads about them. But how much more valuable and inspiring would be a book telling exactly how and why they were erected. It is the thought expressed and embodied in them that we most wish to know; and that once put into a book would be more sure of indefinite survival than the structures themselves.

Recorded thought is our chief heritage from the past, and the most lasting legacy we can leave to the future. Books are the most enduring monuments of man's achievements. Through them alone we know the lives and labors of our forefathers: through them alone can we transmit to future ages the activities of today: only through books can civilization become cumulative.

Many cities have been reared and overthrown on the disputed site of Troy; but the poem that commemorates its fall is immortal. The temple of Jerusalem is only a vague picture in the mind of the scholar; the ark of the covenant is lost; but the sacred writings of the Jews have survived the fall of the kingdom and will live forever. The Parthenon is a sad and solemn relic of "the glory that was Greece"; the temple of Diana has served only to perpetuate an infamous name; but the words of Socrates and the wisdom of Plato will never cease to instruct and inspire. The Forum is a ruin in the Colosseum—

Where on golden throne the monarch lolled,
Glides specter-like unto his marble home
The swift and silent lizard of the stones;

but the orations of Cicero and the meditations of Marcus Aurelius are still potent to teach the lessons of patriotism and purity. Macaulay's prefigured New Zealander may, centuries hence, look about him in vain for the magnificent monument of Sir Christopher Wren; but the book which now lies on its altar and which inspired its building will never fail as a source of inspiration to greater and better achievements than the erection of temples or the consecration of mausoleums. The memorial marble of Westminster may crumble into indiscriminate dust; the statues of Shakspeare, Goldsmith and Gray may share the fate of the great works of Phidias; but *Hamlet*, the *Vicar of Wakefield*, and the *Elegy in a country churchyard* will continue to delight mankind when the pyramids shall have mingled with the sands of the desert. Of

all the products of man's efforts, books alone can be assured of immortality, for they contain the immortal part of man, "the true thaumaturgic virtue by which man works all things whatsoever . . . On all sides", says Carlyle, "are we not driven to the conclusion that, of the things which man can do or make here below, by far the most momentous, wonderful and worthy are the things we call books!"

William E. Foster—To tabulate the benefits of a great collection of books after the methods of mercantile bookkeeping is not the most appropriate way of considering its value; and yet it is sometimes an effective method. A distinguished American scholar, in an address entitled "Literature in account with life", delivered about twenty years ago, showed that, even on so material a basis as this, a great library's resources of information, important as they are, are surpassed in value by its resources of inspiration.

To put it briefly, the library influences which are chiefly under consideration here today are those belonging to "the literature of power" (to use De Quincey's well-known designation) rather than those belonging to "the literature of knowledge"; and I have perhaps been asked to speak to you because of an interesting feature incorporated in the new building of the Providence public library. This is entitled the "standard library"; and its aim is to bring the reader actually in contact with the best in literature.

It should be noticed, however, as suggested indeed by De Quincey, that there may sometimes be a blending of the two types of literature above referred to. To quote myself, "One may go through almost all the classifications of a library, and find included with the classes belonging on the whole to the literature of knowledge some one work which belongs as obviously to the literature of power". Take, for instance, history, with its conspicuous examples of Thucydides, Xenophon, Tacitus and Gibbon, not to speak of that early and delightful writer, Herodotus. There have also been historians (as Macaulay, Carlyle, Froude and Motley) whose work is allied to oratory, both in its literary qualities of holding the attention and moving the will, and in the judgment of some of the more weighty critics allied to it also in its occasional sacrifice of the essential historical fact to the most telling presentation of this fact. We may read these authors,

and be on our guard against being unduly moved, yet nevertheless we are moved. There are still other historians who move us, it is true; and yet we are conscious that it is through the inherently significant facts of their narrative, rather than through any quality imported into it by the historian, that we are strongly affected. Among recent historians, Francis Parkman has come strikingly near an ideal position of this kind.

There can be little doubt that a collection of books like this is most effective when it does not contain much of the "current" or "timely" in literature. Timeliness, in the domain of information, is a factor of special value, but in the domain of inspiration it easily passes into the ephemeral. Moreover, that which is new, in the domain of inspiration, is necessarily the untried; and the annals of literature are full of false voices—premature alarms, so to speak—in their heralding of the coming name of greatest preeminence. When Wordsworth, and Byron, and Tennyson first began publishing their poetry, they were, it is true, welcomed by more than one farseeing critic of literature; but in these instances it must be regarded as an exceptionally kind fate that attended the critic. The names of Mrs Hemans and N. P. Willis received almost as emphatic a welcome in their day, but they have been allowed to subside very completely. Our own time has no doubt presented analogous problems to us, but there need be no haste to decide on which side of the line the names of Kipling, or Stevenson, or Eugene Field will be permanently ranged. It is precisely this unadjudicated territory in which a collection of books like the "standard library" above referred to is not called upon to draw its distinctions. And yet great literature has an eternal connection with great emergencies in history, and the effective use made during the late American civil war, of one of Milton's noblest prose passages—the one beginning "Methinks I see in my mind a noble and puissant nation"—abundantly proved its fitness as a source of inspiration.

There are certain details which may profitably be taken into account in selecting such a collection in a public library; and they may be named in the following order: 1) text (whether unabridged or not); 2) editor; 3) size; 4) type; 5) paper and ink; 6) binding. The question of an unabridged text is of preeminent importance. There is comparatively little inspiration in scraps

and fragments; and, in literature at least, wholes are almost invariably to be preferred to fractions. This is true for the most part, even of the reading of children, considered in a later portion of this paper. For adult readers, however, who are to have access to these treasures, one could wish to have no selections, however well chosen. Let there be, as already suggested, one place in the building where the reader may come in contact with the passage which appeals to him, inspires him, or uplifts him, "in its connection", rather than torn from its context.

It is also important to notice some of the other types of collection and selection which may be considered in reference to their more or less remote analogy to the use of the standard library. Typical instances are the *Library of the world's literature*, edited by Charles Dudley Warner, and the analogous work, within a more limited field, by Stedman and Hutchinson, the *Library of American literature*; also the mingled biographic accounts and literary extracts which are represented in such a work as Chambers's *Cyclopaedia of English literature*; also such compilations as Dana's *Household book of poetry*, and the four little books entitled *Beautiful thoughts*, selected by C. T. Ramage, from the authors of half a dozen different literatures. All of these are on the outer margin of such a collection as the "standard library"; but they are not to be included within it.

Under "editor", the question to be asked is whether he has given us the best edition, in every essential particular; yet here we are searching for one which is the best, as literature, rather than the best, as technical criticism. Such a selection also does not aim to include works of the textbook order, with their attendant annotations or appendixes. Not that an edition here included should lack these features altogether, but the reader should be able at once to feel the difference when these accessories become the fundamentals. The question of translations, however, is sometimes a perplexing one. Side by side with the best original text, should stand the best translation of it into English. An ideal translation must lack neither accuracy, nor the ability to reproduce in great measure the spirit of the original, nor the subtle power of carrying the charm of the author to the heart of the reader.

We need not linger over such details as size, materials, binding, etc. but it is plain that a copy of an author, to be "inviting", should be neither unwieldy nor voluminous. "Books", said Dr Johnson, "that you may carry to the fire and hold readily before your hand, are the most useful after all." The book must also be printed in legible type, on durable and appropriate paper; and should be equipped with a tasteful but not over-conspicuous binding. While some good binding of recent date may frequently meet with approval—whether of goat, calf, vellum, buckram, or even muslin—still the "old calf" editions are even more attractive. The sight of a series of open shelves, with here and there an old calf set of the *Spectator*, or of Milton, or of Molière, has much the same kind of an inviting effect on the young visitor, as an admission to the treasures of an old-fashioned private library had on the child of former days.

In treating public libraries as sources of inspiration, by no means must the young reader be left out of consideration. If a child has not had contact with the best reading in his own home, there is so much the more need of his making that contact within the walls of the library. Let the children's librarians lose no opportunity to introduce the child to the best literature. While the selection of books for the shelves of the children's library should by no means be confined to the best literature for adults, some of these works should invariably be included within its collection. Yet there should be there also some of the English classics, edited for children, provided that they are edited in a not too obvious fashion. It is, above all, necessary that the child's friend, whether teacher, parent or librarian, should be on the watch for a suitable opportunity to bring these treasures to the interested attention of the young readers. Such an opportunity may come about through nature study, or through a storytelling hour, or through developing an intimate acquaintance with the child himself. It need hardly be said that all books in the children's room should be on open shelves, with the utmost freedom of access on the part of the child. Several specific instances of making acquaintance with the books may be suggestive. A child comes upon the allusion to the Round Table, and the Holy Grail, in his textbook for reading lessons. On asking the children's librarian about the subject, he finds that Tennyson and

Lowell have written about it, this inspiring poetry is placed in his hands, and makes its way to his heart. Another child, having been reading about Sir Walter Scott, comes to the library to ask for the *Lady of the Lake*; and is fascinated by its literary charm. Another child, while studying the school textbook on American history, desires to read, in full, Lincoln's address at Gettysburg. He obtains it from the library; and this masterpiece of English prose makes so deep an impression on him that his whole subsequent life is made thoughtful by it. A teacher, in coming to the subject of the American civil war, brings her entire class to the library, to make acquaintance with Whittier's poetry and other literature connected with the war. It is the province of the children's librarian to act as the interpreter and introducer, in fields like these; and, in suiting the right book to the right reader, to make sure that the introduction is effective. Books in the stack, and books in the "standard library", may alike be drawn on. Specially should the children's librarian make sure that, just so rapidly as any individual child can get beyond the stage of enjoying the distinctively "juvenile" literature, he should be enabled to do so. Such instances occur much more frequently than is commonly supposed.

The hope of the future, in the field of good reading, lies very largely with the inspiration developed in connection with the reading of children. It is here that our public libraries have the opportunity to "redress the balance" in an important direction. In the reading of adults there has for years been a marked preponderance of the ephemeral, as compared with the permanent. The result has been seen in the field of private book-buying, which has fallen into a certain decline in this country. Thus the public has, in many instances, drawn apart from an "atmosphere of the best literature". There is many a man who, through his absorption in reading which is of temporary interest (whose value, like the successive hourly issues of the daily press, may almost be said to be less than ephemeral) does not know and appreciate the best literature. It is, however, because he has never been brought in contact with it. When influences like those above indicated shall have been long enough at work, the number of adult readers who do not know and appreciate the best will, in course of time, begin to diminish.

A wise Roman taught, in regard to studious tastes, that these pursuits become habits; that their outcome is better living and better morals. Often has it happened, in the past, that a reader has been so brought in contact with that which is vital in literature, that he could, with heartiest gratitude, say with Keats:

Then felt I like some watcher of the skies
When a new planet swims into his ken.

Over and over again will this delightful experience be repeated in the future, if the public libraries of the country shall improve their exceptional opportunities in supplying sources of inspiration.

SCHOOL LIBRARIES

Sherman Williams — That teacher who trains her pupils to love to read good literature does a work incomparably greater than anything else, greater than all things else she can do in the schoolroom. But because I feel sure many of you won't believe this, I want to digress a little and show why I believe it, or at least one reason why I believe it.

I believe that all that anybody is or can be by any possibility become is the outgrowth of inheritance and environment and nothing else. I know some of you will say that that leaves the will out of consideration. Not at all, the will is as much an inheritance as anything else. Many of you who disagree with me think ancestry when I say inheritance. A dozen children in a family have a common ancestry, but they have not a common inheritance. All there is in life, if I am right about it, in the way of training or education, is the direction of this inheritance, the development of certain traits, the elimination of others.

The environment divides into two parts, one of which is just as much a fixed factor as the inheritance. The association that comes from one's fellows is a fixed factor, you can not change it. You may change it so far as the individual is concerned, but you can not change it so far as humanity is concerned. Here are a dozen gross, profane, intemperate men doing a work that necessitates as laborers half a dozen lads. The environment is a bad one. You may perchance take those half dozen lads out of it to another environment, but if you do another half dozen lads must fall into it. So all through life, association is a fixed factor of environment. We have the good and the bad exerting influence in the world and always will have and always must have.

But boys and girls may be so trained that they will throughout their lives associate in reading, only with the best characters the world has ever known. They need not of necessity have anything else. That is why I say that, when you have trained your children to love to read good literature, you have done a work far greater than all else you can do in the schoolroom. But this must be begun early. Many have found out and the world at large is finding out that the existence of great and good literature does not necessarily count for much, can not count for much, unless people use it, and the training to use it must come chiefly from the schools. How few things we do in life as the result of thought at the time, compared with the many things we do as a matter of habit! It is the work of the teacher to fix the reading habit. Habits are most easily formed early in life, and those formed early in life are most permanent; therefore it is early in life that this reading habit should be formed, and it must be done mainly through the school library. The school library ought if possible to be a schoolroom library, as many libraries in the school as there are schoolrooms and teachers; and a schoolroom library should contain the books needed by the pupils of a class, selected to meet their varying literary tastes, for there is nothing else in which children differ so much. You may bring together in one class pupils somewhere nearly equal in knowledge and ability to acquire farther knowledge, but you will never bring together those anywhere nearly equal in literary taste. You must bear in mind that there are some who will read what the average child of six will read; others who will read what the college graduate would read, and you must provide for both exceptional extremes.

It does not profit very much to say one thing and do another. It won't impress our pupils very strongly to talk about the importance of reading good literature, and then give them for school reading that which is not literature of any kind, good or bad. A child who has learned to call words with a reading vocabulary at hand, ought not to read anything as a part of the school work that is not worth reading for its own sake. I do not say that it is not well enough to read purely for recreation at times, but it is no part of the school work. Then again, this work can not be all class work. There must be individual work here—I think there must be individual work everywhere. There is an opportunity

for some sensible child study in this work. It was my good fortune last summer to do a little institute work in Wisconsin, and I heard a talk on the subject of unselfishness there by Miss May Schriber, connected for quite a number of years with the Milwaukee state normal school, and having charge of the practice department, specially this matter of library work, not only training the children to read good literature, but training teachers to train their pupils to do the same thing. One day a teacher said to her, "I have a boy that I do not know what to do with; I can not get along with him." Miss Schriber said, "What does he do?" The teacher replied, "He does not do anything, that is the trouble. I could get along with him if he would do almost anything, but he does not. He sits there like a bump on a log. His face has no more expression than a lump of putty." Miss Schriber said, "Find out something that he is interested in and give him something on the subject to read." The teacher replied, "He is not interested in anything." Miss Schriber said, "There never was such a boy. Bring him to me." The teacher brought the boy and Miss Schriber began to talk to him, not about anything in particular but simply to interest him and make him talk. Pretty soon he disclosed that he was homesick. He had moved into that large city from a farm and had left behind him everything in which he had an interest. He said, "Why, Miss Schriber, my pets I know will suffer. Nobody cared for them but me, and I can not help thinking of them, oh! my guinea pigs!" Here the teacher who had stood aside said, "Guinea pigs is awful sweet", and he turned and asked, "Who said that?" On the reply that James Whitcomb Riley said that in one of his poems, the boy said, "I should like to read that." The book was lent him, and on Monday morning he brought it back asking if Riley had written anything else, and he kept on till he had read pretty nearly all that Riley had written. A year later he was reading Lowell's *Sir Launfal* with just as much interest as he had read Riley's poems.

I think we are likely to make a mistake many times in not being willing to begin where the children are. I have not much sympathy with the feeling of some people that a child should never read anything that is not really good. If you do not begin about where they are, you won't begin. It is not so much the question where the child begins as the direction in which he moves. You

can afford to begin almost anywhere, excluding of course anything vicious. All through school, beginning as soon as the child has a reading vocabulary, it should and can be a systematic work. It may relate itself to reading, to history, to geography. There is more than you can possibly do and there is never any lack of opportunity. The only lack in this state is in facilities to work with, and here we have more than we are using; but there is no sort of question that, if we will use all that we have, we can get more. The truth is—I hate to say it here—but the truth is that a majority of our teachers do not believe in it. I am not guessing at this. I say it after having been over the state for a year and a half and talked along this line. Most of our teachers do not believe in it, and they ought to be made to believe in it. I do not believe that a child should be held strictly to an exact line of reading. On the other hand, I do not believe he should be allowed to read just what he chooses. I believe a selection should be made from which he may select; for instance, during his school course he should read some travel, some history, some geography, some prose, some poetry, something of all kinds of literature. In the proper place there should be a selection of 10 or a dozen or 20 out of which he is to read a certain number. There should be as many books from which he can select as possible, any one of which he may read. You will make sure then of his reading a few good books in all departments as he goes through school.

Because this work has been done by teachers in my school so long, I know something of the results. Let me tell you of one case. A year ago last June I met a former schoolboy of mine who had graduated some years ago and had done a good deal of reporting for the body that sits in this chamber. He had a book and I asked what he was reading. He answered, "Don't you remember that in the last year of our school course the teacher read to us from half a dozen different books, which I listened to because I thought I ought and because the teacher read well and because I loved her. Last winter I recalled one of those books bearing on a line of work in which I had become interested, so I got the book and read it, and I read all of the books that she read from; this is the last one of the half dozen." That suggests another thing: not only should pupils read in school and at their homes, but they should be read to by the teachers, and there

ought to be at least once a week what you might call a literary hour in which the reading of the past week on the part of the pupils should be discussed in a perfectly informal manner. That was done by many of our teachers with most excellent results and carried on in a manner most delightful to the pupils.

Prin. A. W. Abrams—At all times among people advanced in civilization the library has been a cherished institution. But how different is the present conception of the proper function of the library from that of earlier periods! A library is no longer a collection of writings stored away within massive walls for preservation, but is a treasure house opened wide for the use of all who can be induced to come and derive strength and enjoyment from it.

With this new conception comes the desire to know how to make available to men the great wealth of thought and feeling contained in books and periodicals constantly multiplying all about us. So extensive are the resources of our great libraries that without training in the use of this material one is simply bewildered and discouraged. No greater problem confronts the educator than that of putting the student in possession of the key that unlocks for him the choicest problems of the human mind. To make students really at home in a library, is of far greater importance than their examination, classification and promotion, and to this problem the teacher must give himself over.

There are two classes of libraries in which most secondary schools are interested—the public library, existing for the whole community including the school; and the school library, to be used by teachers and students alone. Their work is not just the same, yet one supplements the other and both should work in entire harmony.

In discussions of the question of books and reading two statements are commonly made that stand, I suppose, unquestioned. First, we should teach pupils not only how to read but what to read. Students are to be led to read good literature while in school that they may continue to read it in after years. Second, that children should begin much earlier than they have to read masterpieces entire. It is probably true that many pupils can appreciate much of the better literature at an early age. There is a third proposition which is assented to but is, as a rule, not

sufficiently emphasized. This is teaching how to use a library intelligently; and, to my mind, this constitutes the most important problem connected with the school library. Only a small portion of even the most valuable books can be read by one individual, very few will be read by the average person. Except in the case of pure literature we seldom care to read a book entire. But we are constantly wanting information on particular topics, which can readily be obtained at the library if we know how to find it. Yet we can no more expect a person without having had direction to accomplish any thing in a library than in a laboratory. He knows not where to begin and the product of his labor is worth little in comparison with the time spent. Why is it that so many who graduate from our schools when called on in later years to discuss some topic of general or local interest are utterly helpless to do so? Not because they lack the mental ability surely, but because they have never learned how to proceed to accomplish such work. They do not find thoughts at hand. They can not draw on the common stock deposited in the library. The larger the library the worse the confusion. So the school must give attention at all times to the use of atlases, dictionaries, and cyclopedias; to indexes, tables of contents, summaries, etc. The student must be taught how to run down a subject that proves elusive. How many students—how many teachers even—appreciate the wealth of information to be gotten from a dictionary? Not long ago on entering a certain schoolroom, I found carefully stored away in a bookcase at least 20 copies of Worcester's *Academic dictionary*. I asked the teacher in charge why this was so, and she replied that she was tired of seeing them lie around on the pupils' desks.

The school library should be first of all a reference library; but beyond an abundant supply of dictionaries, cyclopedias, etc., it should contain as much as possible of collateral reading for classes in geography, history, science and literature. It should be a working library. There should be larger works from which the teacher can gain a wider range of knowledge and to which he can direct his more proficient students, books calculated to stimulate among all a farther inquiry into questions only partially set forth in the regular textbook, that study may mean something more than the humdrum of memorizing a few set statements. Each room should contain its own selected library, adapted to the

age of the pupils and the nature of the work done. The teacher should know these books thoroughly and be able to call pupils' attention to portions that would throw light on topics discussed in class. Access to these books should be free at all times. They should often be consulted during the class period. In more advanced grades and in the high school it is an excellent practice to assign subjects to students and have a bibliography prepared by them. The teacher should be at hand to assist in this work, to insist on economy in the use of time and to distinguish between the important and the unimportant. Some formal talks on the use of materials might not be unprofitable, though I do not advocate the introduction of a new subject into the curriculum.

And all this is that the student may the better command the resources of any library. It is not so much the information that is gained as the process that is important.

I have said little about pure literature in the school library for several reasons; first because this has been much discussed, and the importance of cultivating a taste for the best types of literature is well understood. In the second place I am not sure that too much stress is not put on this matter. Some would make literature the center about which the whole school course would revolve. This seems to me to assume too much. Some children have too great an interest in reading for their intellectual growth. The reading is superficial and becomes a mere passion with them. There is a fascination about reading book after book. Show me a person who reads thus and I will show you a person who can not bring himself to the point of real study, but is weak in regular class work, weak in ability to think. The problem is not to get people to read. It is not to get them to read good books even, but to cause them to think on what they read, to digest it. I am not unmindful of the ethical value of much of our pure literature. And it is even well that we read some books merely for the pleasure—the recreation of it. But this is rarely to be done in the schoolroom by the students individually. Hence works of fiction and other general literature, not closely related to the student's regular school work I would not place in the school library but in the public library.

Does this view lay too much stress on the practical use of the library? Does it emphasize the literature of information more

than the literature of power? Does it fail to make the school library a means of inspiration to higher thoughts, deeper feelings and nobler actions? Not at all. It makes well directed, effective action possible. It cuts off no form of truly ethical training to be derived from books, and what a sense of power comes to the student who realizes that he can command the wealth that is contained in a well-stocked library. To the student who has learned to use books, graduation does not mark a transition between two worlds. The school years will be not only a preparation for life but a part of a life whose horizon is ever broadening. The process of education will not cease with commencement.

UNIVERSITY LIBRARIES

Dr James H. Canfield¹—In the few moments that remain of the time allotted to this portion of the convocation program I can do little more than express very heartily indeed my assent to all that has been said thus far with regard to the practical value of wisely selected literature, in its effect on the life of the students. Good books are really good men and good women. They are far more than the printed page, far more than type and paper and binding, and far more, it seems to me, than simply the expression of ideas that are to be found between the covers. If they have not a direct personality and can not exercise a direct personal influence, then they are hardly worthy the name of literature and they are not very valuable in their perusal. The best books are the best men and women at their best, and we come into contact with them as we could not possibly in any other way. It is not given to most of us to have a very large circle of valuable acquaintances and friends. It is not given to many of us to have very many friends who could be called powerful adjuncts to our advancement, to our well-being. To most of those who are our friends we are obliged to give quite as much as we receive, and it is well that it is so. But there is this large circle of large-minded men and women who stand ready to give to us and take nothing, who are constantly ministering in a very large and generous service for which they ask no returns whatever. We can come to them with the absolute certainty that we shall receive and receive largely that which is inspiring and uplifting; that we shall not

¹ Stenographer's report.

be obliged to suffer any drain whatever upon our own resources except that which comes to us when we stand sympathetically side by side with a fellow man. The best men and women at their best—that is the best literature. I have used this illustration so often that I hesitate to use it again—yet it seems to me a fair and very simple illustration of what I mean, to say that it is very much like neighboring. If we could possibly bring into our neighborhood and into immediate contact with ourselves the people who are the writers of the best books, we should feel that we were at once advanced in all our interests, that our neighborhood had been largely improved. Yet that is exactly what we do when we have learned to enjoy and to profit by the printed works of these men and women. We bring them into our neighborhood. We put them down by us, and enjoy their society hour after hour. They are often better than the average neighbor because we have them always at their best, we have them always when we most need them and they are completely our own—whether it be in the silent watches of the night when we can not sleep, or when our hours are burdened with care and anxiety. We are glad to turn aside for a few moments to the sweet companionship of a brave and strong soul, whether it be on a journey that is tedious in itself, to occupy a stray hour at a junction where otherwise waiting would be almost unendurable, whatever the time or the opportunity may be—here are these men and women ready to come at our call, without money and without price, without any return on our part in the way of advice or suggestion or counsel. They come and sit down by us and tell us of the very best thoughts that have been in their minds during their best and strongest and most powerful moments. It is worth absolutely everything to put a child in touch with men and women in that way, and that is the magnificent work that is being done today by the more intelligent librarians who are taking hold of library work as a part of the school work of the community in which the library is located.

Having cared for the school children in that way, having started them up this ladder of Huxley, this educational ladder with its foot in the gutter and its top in the university, having accustomed them to turn aside in that way for that helpful companionship, we can not consent for a moment that when they

reach the university they shall be deprived of this companionship. If they have been trained to that kind of association prior to reaching the university, then we are anxious to have it continue, to enlarge it, to make it still more enjoyable and still more beneficial. If they have not been trained to it, if by any misfortune in their past life they have fallen short of this enlargement of life and their horizon is still limited, then we desire to extend that horizon and we are willing to begin that work. The university library, therefore, carries with it every argument for its existence that has been deduced here today, or that can be deduced, for the public library or the school library. It commends itself therefore in a very large way to those who are interested in the advance of higher education.

The university library, however, carries with it something more than that, because it undertakes for the first time perhaps in the life of the student, to aid him in the special line of work that he has selected for his life profession. In other words, the university library gives to him not only general culture through its general library, but this library is to be regarded as the specialist's laboratory. It is the place wherein he is to work out specific problems, where he is to answer specific inquiries, where he is to seek for specific information that shall apply directly to the special work that he has taken in hand. Of course this is more largely true of the university with its graduate students than it is of the college with its undergraduate students, but it is true of both, because even within the limits of the college the young man is beginning to ask himself what he is to draw on for his after life; and if he is wise he knows that special preparation should be made for special advancement in some particular undertaking.

My first connection with a university library was as one of those who petitioned the trustees of the college in which I was then being trained, that the library should be open twice a week in the afternoon instead of once a week. I want to confess to you frankly that, looking back on that action, I think the animus of the petition was not so much the benefit that we expected to derive from a closer contact with a large collection of theological works that had been left to the university by the devise of various deceased or decadent graduates, as it was that we thought it

about time to petition the faculty for something and to stir up the authorities! I do not want any more credit than belongs to me. It resulted in opening the college library not only on Saturday afternoon from 2 to 4, but on Wednesday afternoon from 2 to 4, the college authorities wisely choosing the two holiday afternoons when none of the students would be apt to come to the library at all!

My last official act was to accept for the library of Columbia university the "Garden library" from the Southern society; a collection of books, nearly 3000 titles in all, covering the history and the life and the spirit and the thought and the purpose of the people of the southern states; and specially the thought and purpose of the people of the southern states in connection with the late "mutual unpleasantness". That official act of putting that large collection of books on that particular side of that particular question within reach of the students of American history, as contrasted with the earlier act of simply opening a general and ill-assorted library twice a week, marks very emphatically the change that has come in the thought and feeling with regard to university libraries. Today we desire to enlarge the faculties of our colleges and universities by putting in them as professors in full chairs, gentlemen who have done specific or clearly recognized work in certain directions. We have, for instance, in the average college of today some one who recognizes American history as worthy of being taught. It was not taught in my day at all. When I entered college during the stress of the civil war, I heard no reference made to the history of my own country in my entrance examinations, and I never heard the history of my country alluded to in the four years of my college course. But now we have some one who recognizes the value of American history—he may be a man of ability and he may not, it depends somewhat on the importance of the college and its financial resources—but we are able to supplement his work by the work of the very best men in that particular field. We can place on the faculty of any college in the United States today John Bach McMaster. He no longer belongs simply to the university that bears his name on its roll, but he belongs to every college and every university that has the good sense to put his works upon its shelves and direct its students to them. We

can use Senator Lodge, in that helpful work of his, *Short history of the English colonies in America*; specially in the "even" chapters wherein he discusses the social life, the civil life, the ecclesiastical life, the industrial life of the people—we can put him upon the faculty. We can put John Quincy Adams upon the faculty and let him tell with a pen that is dipped at times in gall and yet is always fascinating, let him tell the inimitable story of the development of the constitutional and political history of this country, and let him throw the side lights upon the characters and lives and actions of the men who have been the leaders in the past history of this country, politically and otherwise. We can bring in these and other men, and use them as they could not be used under any other circumstances—if we only know how to make the library of the university or of the college do its work in a fitting way. So in philosophy: we can bring together a large collection of the ablest philosophical thinkers of this country and of all countries, and they are all members of the faculty if we know how to use them. So in science: we can have the latest word that is said upon science, and how can we exist today without that latest word! The last word is generally the best word, the most important word, because if you undertake to go much farther back than the last word you are lost. I presume that there is no line of thought so completely strewn with wrecks as the line of scientific thought and scientific investigation, so that the last word is peculiarly the most important word in science. Some one, you remember, asked Mr Gladstone once what was the latest thing or the latest word in such and such a scientific line, and his immediate answer was "I don't know, I have not yet seen the morning paper." We need and we have that last expression and that last thought in the periodical literature of the scientific world today.

In all these and in many other ways the university library and the college library of today ministers to the upbuilding of the students who make use of it. It ministers to them in another way. It gives them a certain independence of thought, and by the use of this library they are taught how to investigate for themselves. Now the questions which the average community asks a young man after he goes out into the world from college are not very many. I do not mean the questions that are asked by

the "four hundred" or any other foolish people, but the questions asked by the community as a whole, by the common people. They do not ask him very much about his pedigree. Of course they would prefer that he should have five governors in his ancestral line rather than five convicts in a state's prison, but that depends a good deal upon the states in which the governors had been elected! They only think of it as a promise for the future and not because it means much in the past. They do not ask, "What have you learned", but "What can you learn? Are you so trained that you can learn of this community? Can you put yourself in touch with it and understand its needs? Can you take hold of this life of ours and know what you can do for it? Can you learn of it and can you master it so that you may render it a large and generous service? What can you learn, not what have you learned?" The fact is, so far as what he has learned is concerned, the greater part of it is forgotten as soon as the examination is over; and after the examination is over the greater part of it may be very well forgotten, because it is in the learning of it and not in the thing itself that he has gained strength and power. The community says not "What have you done", not "What were your marks and standing," but "What can you do, what can you do right here and now for us, with us, as one of us?" To be able to keep himself in the front, to meet the new questions that are daily arising, to offer a solution to new problems, he must be a mental giant. You can not possibly sit down and evolve these answers out of your true inwardness and come out successfully in the operation; you must know how to reach the problem; you must be able to understand what is in the field and to be able to sift that which is weak from that which is strong and that which is clear and that which goes directly to the point in question. The foolish man, I take it, is not the idiot, the man with the dull, lusterless eye, with open mouth and drooping jaw; the foolish man is the cranky fellow that Solomon talks about for instance, the one who does not understand how to choose his end wisely; or if he does, he does not know how to adapt the means to the end. He does not know how to get at the work in hand and he loses time and strength and ground and is eventually swept out of reach and out of touch, by the vast group of men and women who do know. Now the man

who has been so trained that he can master readily and put himself in touch quickly with the thought of the world, is the man of the most power today. You might as well undertake to eliminate the telegraph and telephone, all the work of electricity, and say that the world would not suffer, as to eliminate from the world the large body of men having the power to take hold of it and make it of practical, positive benefit. There the training of the university library comes in, even over and above the training that can possibly come from the school library and the public library, because it is a special training to the men and women specially prepared to accept it and profit by it, and going out to do a special work in a special way. That question, the mastery of life, means something and it means a very large something to us today.

Just one more thought. I take it that the perpetuity of communities, of nations, of states, depends very largely upon the people in those communities, nations and states doing something and thinking something that is worthy of being perpetuated, just as immortality comes to a man, not a sort of condition that happens to a man because he happens to die, but because he is thinking of something that is worthy to be immortal. If he does not, he can not possibly endure. It is very hard for me to understand that a man can give himself to petty things, to things that we know are evanescent, and find immortality. Wealth, power, fame—some of these we have seen ourselves. We have seen that they are not imperishable, but very perishable; that they are not stable, but very unstable; that they are not permanent, but very evanescent indeed. There are other things that are imperishable and are immortal, and it seems to me the perpetuity of a community comes in just that way. If a community is dreaming dreams and seeing visions, that is very well, if the visions that are seen are no longer the mere fantasies of a distempered mind. If the thought of that community is a large thought, if the life that it lives is a generous life, if the means and the ends that are chosen are chosen intelligently, if it does a great work in a large-minded, large-hearted way, we can say that that community and its thoughts and purposes and plans will endure. But without that sort of life, I do not see for a moment how we can hope for perpetuity. We will simply blunder along, the victims of our own

foolishness and our own shortsightedness, and eventually blunder into the grave that has covered so many nations in the past because they have lived in that shortsighted, unintelligent way. So it seems to me that the public library and the school library and the university library are all needed and helpful under wise and proper guidance. That is where the librarian comes in, as a positive educational power in a community. If he can not be this, I think he would better withdraw from the profession. It seems to me that those who have not the power to take hold of the life of a community to guide it and direct it, and those who do not feel that there is enough professional opportunity to stir their professional pride, have lost half of the inspiration of their lives. With this opportunity, with this new power, with this larger life under the direction of the librarians of this country at large, and specially in the smaller communities, each in his place, each in her place, doing that which is nearest and doing his or her best with that spirit of love that comes out of such conditions, I think we have every reason to believe that this government of a great and a free people will not perish from the earth.

PUBLIC LIBRARIES

Melvil Dewey—Inspector Williams says that in this state we do not believe some things that he has been saying. We do believe; but it is a mere intellectual belief like some church credos, and the lynx-eyed Aristotle said "Mere intellect never moves anything." We want a belief that will result in action.

If we appreciate the importance of reading and of the library, what are we going to do about it? Teachers find school curriculums overcrowded. They come to convocation and hear or read in the papers what has been said of this work, what ought to be done, but there is no time to do it.

Our topic this afternoon is inspiration from libraries of various grades. We have to consider not only inspiration, but also information. It is a great thing to *know*. The difference between the civilized man today, who has become as a god in the things that he can do, and the savage or the brute, is that the civilized man is standing on the shoulders of all his predecessors by means of the printed book. A squirrel probably will climb a tree and build his nest and gather his nuts with no more and no less

skill than all the generations of squirrels before him. The savage has the gift of speech and he will pass something, but only a little, on to his children. But the civilized man gets from the record in his printed book all that his predecessors had learned and so goes on in each generation toward higher and better things. The savage stripped the bark from a birch tree and in a day or two built a boat in which he crossed the lakes and followed the rivers. Simply because we are standing on the shoulders of our predecessors by aid of the printed book we now build ships like the Kentucky, in which all the inhabitants and many times all the wealth of a score of villages can be carried. The cash value of land, houses and furniture of a country village of 1000 inhabitants in the less prosperous sections will hardly exceed \$100,000. It would take 50 such villages to build and equip for sea such a ship as the Kentucky which we are contrasting with the bark canoe of the savage. If he wished a bridge he felled a tree across the stream. The man who uses books has learned to build spans like that at Brooklyn, costing as much as 130 of our typical villages. This suggests the field of the library not as a source of inspiration, but simply as a huge cyclopedia where any one concerned in any subject may go for any bit of information that may make his life and work of greater money value to himself or to the community. In one case a city committee got from a book in the public library facts which they admitted enabled them to save \$30,000 on a single contract for lighting. These are endless cases where the information found in the library has made possible inventions and improvements of the utmost commercial value to the public as well as to the individual. The library in this way is the ready means by which each mechanic or other worker may stand on the shoulders of those who have worked before him in the same field. Such information is very important and is worth vastly more than it costs, but is less vitally important than inspiration.

An often forgotten source of inspiration is in the service rendered by the library in giving a taste for good reading. If by any means, if no more than by the illustrated papers or cartoons, you can give a boy or girl the reading habit you have made a most important contribution to his education. You may give the greatest feast in the world, but unless people come to it, it does

them no good. You may have the most extensive library, with every book that is known open freely, but unless people will come it is of no avail. We have solved many of our difficulties in the schools by our compulsory education law. Did any of you ever hear of compulsory library legislation. The phrase is used, but it means simply that in certain states there is a law compelling the town to provide library privileges for those who choose to use them.

We shall never hear of a compulsory library law that will compel men and women to read. We have to face this serious question of how to rouse in people a desire to read, and how to make them understand that the quickest and best way to success in nearly all callings must include the use of the library. This is the great problem before the schools. To ignore the library is largely to lose the experience of others in the same field, without which the highest success is seldom possible. We are surrounded by schools of various grades, but have comparatively few libraries. If librarians collect in their building the best books and provide courteous and willing attendants, they have done their part. On you who have charge of the young in school rests largely the responsibility for giving a taste for reading so that they will in after life seek the libraries and accept their assistance. They will never be sent there by a compulsory library law.

While we accept this doctrine in theory (probably no one in the room will question the desirability of these things) few believe it so earnestly and so fully that they are really doing the work that they ought to do. 12 years ago today in the senate chamber I spoke for the first time before convocation on just this topic. I remember saying then what I repeat now, that nothing invented by man could for a moment compare with the printed book, which is so common that we forget how much it means. Telephone, telegraph and phonograph we admire as almost miraculous, but their miracle is less than that which appealed to the savage when the white man simply held before his eyes something that was like the fabulous magic mirror in results, though only a bit of paper on which were some conventional marks. By simply holding these conventional shapes before the eyes they accomplish what the magic crystal is fabled

to have done. We live in other countries and at other times. We hear the words of those dead a thousand years. Sometimes we live similarly in the future when we read the words of poet or prophet. Where is other miracle like this? You have seen boy or man thrilled throughout his being by inspiration that leads him perhaps to go out and risk his life for a cause, simply because he held before his eyes for a few moments this bit of printed paper. We forget what a miracle of power is put into our hands in the printed book.

For 30 years I have been working in the educational field and studying this question and have come to believe this thesis, which I mention simply to show how deeply it has impressed itself on my mind: if we had to choose (Thank Heaven we do not!) for the welfare of the public whether we should have a system of libraries free to all, accessible to every man, woman and child in the state at any time for either the literature of knowledge or the literature of power, where from earliest childhood, as soon as they had learned to read, clear to the grave, they should have wise guidance and suggestion that would shape their reading all their lives—if that were in one balance and we were compelled to choose between it and our magnificent system of common schools, I have no hesitation in believing the library system the more important, because even without our schools, the number of boys and girls that would not learn to read is comparatively small. From some source they would most of them learn, and for good citizenship, for material prosperity, for the happiness of the people concerned, I would choose the library that should give them the best books all through their lives, above the schools with their admirable training for a short period in childhood. That sounds a little extreme. There is not time now to discuss it, but I am convinced after years of thought on the subject, as I believe most of you would be if you studied it deeply enough, that it is really the truth.

We say that the supreme thing in education is to build character. That comes out in all our discussions. Our best leaders all go back to that. Perhaps they won't put it in exactly those words, but you will find all the while that the great notion is not the mere training for this or that calling or profession, but the development of character. Now character is built on habits,

and habits come from actions repeated, and actions come from motive, and motive comes from reflection. What makes people reflect? What is usually the meaning of reflection in man, woman and child at the present time? In this age of wide reading you won't question that this process is started very largely by reading. Follow the process the other way. Reading begets reflection, reflection begets motive, motive begets action, actions repeated beget habits and habits beget that supreme thing character. I believe profoundly that this education, to which most of us have given our lives, with its great aim in building character is dependent more and more on this question of reading, which must be shaped and guided chiefly through libraries. I echo heartily every word that Inspector Williams has said, that it is altogether the most important work with which we have to deal. The library is today more than simply a collection of books. All these things just at the end of the century are in a state of unrest. The daily newspaper is publishing a weekly supplement on Sunday. Many of our weeklies are publishing a monthly magazine. The publishers of our magazines are also publishing books and in some instances, like the *Anglo-Saxon*, the magazine itself is a sumptuously bound volume. The whole matter is in the air and it is our privilege to live in a time when these things are being settled. I saw the other day in a little New York village a great bundle of newspapers come in for that community to read. I looked them over and found the whole package made up of what we know as yellow journals. Not one of our best or better or even mediocre journals could be seen in that package; and that is what the whole village was reading as its mental pabulum! I am an optimist, I am full of hope, I believe that the right will triumph, but when I see some of these things I sometimes feel inclined to steady myself somewhere with a good hold and say "I believe, help thou mine unbelief."

Dr Canfield spoke wisely and eloquently of the inspiration of the best books, and then we come face to face with ugly facts. Do you know that the majority of Americans can not read, do not read? Of course they read their business papers and ledgers and letters, but they have not learned to go to books for recreation even, much less for inspiration and information. A great many of them read the daily newspapers, but nothing else.

When people have really learned to read, to think other's thoughts, to live the life of the book, they find it the most fascinating amusement, the greatest source of new strength and happiness, and the last thing they would part with. They can read and meet the requirement of the illiteracy test. So also, the ability to keep from sinking by a wild struggle with arms and legs would entitle them to say they could swim, but how ridiculous a figure they cut beside the real swimmer who can support himself for hours in the water or swim for miles and come out refreshed rather than exhausted. The simple truth must be faced. Most of these people have not yet learned to read in the broad and best sense of the words. You represent here the reading class preeminently; you associate with that class. You are less likely to appreciate how little others read. But how many of the men and women you know do not read a good book from month's end to month's end; read nothing but newspapers, and often those that do not represent the current history of the world brought out with dignity and power and ability, but the kind that magnifies what is petty and mean and sensual, that in our hearts we despise. Now really that is the great problem that confronts us when we are talking about reading, that so many people do not read at all, and that so many people choose their limited reading not from the world's best but from its worst. Reading is a mighty engine for good or ill. The boy or girl that reads is not necessarily improving his moral or intellectual life; he may be doing directly the opposite. It is the greatest problem with which we have to deal and the libraries and the schools together have to carry the responsibility. The modern library is no longer a mere collection of books. It is that accumulated wisdom and knowledge and inspiration of the past expressed very largely in books. But it covers also pictures, the work of study clubs, all those interests of which I have so often spoken to you that we know as "home education."

We must work together in all these things. The schools must give to their boys and girls a taste for reading, the libraries must supply the best. We must begin the work each one of us, not so much concerned with what we give them today if we know that they will read something better tomorrow. You who know how earnestly my life has been given to this question will:

understand how deeply I feel its importance. I want to urge that you think on these things, that you believe with a belief that shall lead to active work, so that we may make this state of New York, that has been a pioneer in so much connected with libraries and reading, the place in all the world where there is the highest average of good reading.

It is a great thing to have a library for information, it is a great thing to know and it is more to feel and to do, but above all to be and to believe, and you believe today that the thing that exerts the greatest influence on what men and women are and on what boys and girls are going to be as they grow older, is reading. To know, to feel and to do, but above all to be, these things are shaped chiefly by reading, which is therefore the chiefest concern of those who are giving their lives to education and the building of national and individual character.

Tuesday evening, 26 June

AMERICAN OPPORTUNITIES AND EDUCATION

BY HAMILTON W. MABIE

Education shares with religion, science, art and institutional life that general movement of change and expansion through growth which keeps it always fresh in our interest and foremost in our attention. There will always be a new education because there will always be a new perception, through vital experience, of the things which men need to know, and of the processes by which these fresh perceptions convert knowledge effectively into power. The time anxiously expected by those who are weary of change, when the lines of education shall be defined, the scope of education determined, and the methods of education finally settled, will come only when men have done with experience, with thinking and with action. So long as we are dealing with new conditions, so long as the pressure of the accumulated tendencies of the past are pushing us along new lines of development—to the very end of the historical process, we shall be revising our

ideas of education and reorganizing its methods. It is this which saves education from taking its place with the things which are complete because they are dead. It is this vital element in education, this necessity laid on us to modify in every decade its processes, which makes the dealing with educational matters itself an education, and gives the very process of teaching in all its forms pedagogic value.

Sooner or later every experience must disclose its value in vital education; if it has no educational value, it does not count. One of the chief uses of the crises through which individuals and nations are constantly passing is the light they throw on those organized ideas which constitute individual and national character. When a man is in the full tide of activity, putting forth his entire strength in the management of a great range of interests, neither he nor those who look at his career are aware at every moment of his interior aims; those ideas at the very center of his life which dominate him and shape his career among men. These ideas are concealed by the rush and sweep of his energy. In like manner, when national activity is running with tidal force and volume, those ideas which lie in the heart of the nation and which are organized into its political character are often invisible for long periods of time. No one thinks of them save the philosophical observer of life; the nation is not aware of them. But when this tremendous energy is arrested by some great crisis; when in mid career of action a nation's character is challenged by some searching experience, then the ideas which lie in its heart are suddenly struck into light. When these critical experiences come to a nation and call a halt in the midday of its activity, then suddenly the things which it believes in its heart rise into its consciousness and become clear to the whole world.

Now these fundamental ideas, these formative convictions which are the roots of character, are the deposit of education in its large sense. They are the product of that silent process by which institutions, inherited faiths, political traditions, formal training and physical circumstances are distilled into a few fixed habits, a few organizing ideas of life. The English-speaking races are holding their places and doing their work in the world today by virtue of their political education; they are everywhere the representatives of that full development of individuality, that

free play of personality, which involve definiteness of aim, concentration of will, courage adequate to all emergencies, and the power of standing alone, and if necessary, dying alone at the place where one's work is to be done. This is the reaction on character of a form of government and a body of political institutions which have constituted for many centuries a school of popular education; political in form, but vital in essence. This education has been the result of the working out of certain rational ideas, modified by physical surroundings and historical conditions. No attempt has ever yet been made on an adequate scale to definitely shape by educational processes the development of national character; that character is, nevertheless, the product of education, and that which is the product of education may be definitely modified by educational methods which shall be intentional and conscious rather than purely instinctive. It is a matter of secondary importance whether one political policy or another prevails. What happens *to* a man of strong character is always of less moment than that which happens *within* him; what happens *to* a powerful race is of little moment to that which happens *within* the race. If right and adequate ideas of life can be planted in the character of a people, their progress in any given decade may be advanced or retarded by the adoption or rejection of certain policies, but their destiny is determined, whatever policies are adopted or rejected.

The educational question is, therefore, in this large sense, always the first question; if it could be answered rightly other questions might almost be left to take care of themselves. Sound and adequate political education would do the work of a host of specific reforms. It is lack or imperfection of political education which makes it possible to practically arrest the workings of free institutions and to deprive the electors of any real control of government. A people live in those fundamental ideas which are implanted and developed by education, and it is education of this vital sort which determines national character, and therefore settles national destiny.

The life of a great people is both inward and outward. It is a life of the spirit, and it is a life of action; and the greatness of a race is determined by the depth and volume of its life in the spirit and the adequacy of its action to express that life. There is in

the heart of every race a group of ideas which may be called ideals, since they express the passions, the faiths and the aspirations of the people. There is also in the same race a power of action, an executive ability, a skill in doing; and the real national problem is the coordination of these two sides of life; the side of ideas and the side of action. We live in our ideas; we express our ideas by the things we do.

Now, the executive side of national life is affected chiefly by formal education, by specific training; and the efficient races are the races whose education not only gives them sustained power and concentration of will, but also adequate skill in dealing with practical matters. Desmoulin, who has studied the question of English efficiency from the standpoint of an intelligent and open-minded Frenchman, has discovered the secret of the immense executive force of the English race in the education of the will which takes place in the English home and the English school; the steady training of the boy to stand on his own feet, to find his strength within himself, to use his resources in a crisis with cool self-command, and to be able to hold his own, if need be, in isolated and solitary strength. It is this training, developing the highest force of individuality, which enables the Englishman to live under conditions which are almost fatal to the Frenchman; to spend long months together in solitude, to overcome the homesickness to which the Frenchman falls a victim, to resist the morbidness which comes from isolation in lonely and remote places, and to keep physical and moral health in long separation from the wholesome tonic of social relations. English ideals have worked down through the race into the individual, and are worked out through the individual wherever the opportunity offers. Englishmen in responsible positions often make blunders, but they rarely succumb to difficulties. They invariably put up a brave fight, and if they are beaten, it is not for lack of courage. The German is more thoroughly trained than the Englishman; he commands more kinds of skill, he represents a more systematic education; he is, in fact, the most thoroughly trained man in the modern world. So far, however, he has lacked the individual initiative of the Englishman because his political life has not developed his personality to its full extent; but the long subjectivity of Germany is fast being translated into a most efficient objectivity, and

the German is today the foremost commercial competitor of the American and the Englishman. These three races are the active organizers and leaders of modern civilization in the western world because they most thoroughly harmonize adequate ideas with adequate skill in execution. So far the Slav, with all his force, has not impressed himself on western Europe. He has followed the lines of least resistance to the south and the east; he is practically an unknown factor so far as his ultimate race development is concerned.

Important as is this executive skill, this trained intelligence in practical affairs, it is secondary, not only in time, but in dignity and value, to those ideas or ideals of which it is the expression. These are the real springs of a nation's energy and vitality, the real sources of its power; if these are deep and adequate, there is practically no limit to the outgo of its energy and the expansion of its influence. Every great people which has finished its career has passed through a period of great intensity of action; but after a time the vital tide has ebbed, and then, in every case, the quality and depth of the organizing ideas behind it have become visible. The emergence of these ideas into the light has disclosed the secrets of its power or its weakness. Sooner or later in the ebb and flow of national life, surface activity wears out and leaves the structure bare; this structure is the product of education. Few things are more striking in history than the disparity between Roman energy and Roman ideality. This masterful race had immense force, and put it forth during a long period of time with irresistible intensity and momentum; but there were no adequate ideas of life behind this force, and after the flood of energy had spent itself there were no deep fountains from which new streams could issue; there were no fundamental ideas from which a new civilization could be evolved. The Roman mastered the world and held it in his hands, but he did not know what to do with it; and so he remains, first, a masterful figure, then an impotent wielder of forces which he did not understand. There is no more tragic anticlimax than this swift and splendid grasping of all the resources of life, followed by complete failure to understand or use them. The secret of the material strength and the spiritual weakness, of the disparity between executive force and ideas, is to be found in the Roman education.

The peril of a country which has depth of idea but inadequate grasp of reality may be nobler, but it is not less real than that of the country which has a deep sense of reality, but inadequate spiritual conceptions. A nation of pure idealists would miss that final truth which comes as the fruit of action, that deep and mastered truth which is gained only through experience; for action instantly reacts on character, modifies ideas, makes them more definite and grounds them more deeply. Peoples who have chiefly executive energy are forces without depth or direction; peoples who have only ideas are dreamers who never pass into the actual world and whose ideas never become fruitful and dominant.

Along both these great lines—formative ideas and executive efficiency—education is the shaping, if not the creating force. It is due to a lack of education that we are still perplexed and distressed by the elementary problems of politics, by the existence of wrongs and abuses which belong to rudimentary political conditions. Whenever the political education of the country, expressed both in ideas and in executive force, is adequate, machines and machinists in public affairs will cease to be; they can not exist in a really intelligent atmosphere; they exist today solely because so many American citizens are half educated politically. But education in this country is more than a question of political efficiency; the justification of democracy is involved in it. Democratic government is distinctly the most expensive in the world; expensive not only in money, but in the work which is required to give it the highest degree of purity and efficiency. It is neither so immediately effective as an organized administrative force as that which governs Germany, nor can it be conducted at so small an expense. If democracy were to be judged solely by the efficiency of its administrative work and from the standpoint of economy, it would fail to justify itself; its justification must be sought for on other grounds. It is the safest of all governments because its foundation is as broad as society itself. Nobody stands outside the circle of its privilege and responsibilities; no man is interested in tearing it down because it does not belong to him; every man is interested in securing the largest personal influence under it because if he can command sufficient influence he can modify its action. Politically the whole field is open. In the long run democracy must find its justification in the fact that it

takes everybody into partnership, and that, by the equal distribution of its privileges and responsibilities, it puts forth an educational force of the most searching and permanent kind. Any form of government which trains its citizens to respect themselves and others, to guard their own rights and the rights of others, and so transfers authority from an external order to an interior principle, rests on immovable foundations, and justifies greater cost and care.

Under democratic institutions citizenship ought to be steadily improving. We have found it necessary on this continent to provide every degree of political education, and to make room for every stage of political development. Starting with a mixed population in all stages of culture, we have had to provide every form of political education, from the primary school to the university. It is not surprising under these circumstances that we have not done our work with mathematical precision or artistic symmetry. It is due largely to the educational inequalities of our citizenship that most of the vices which afflict us have been made possible, and that we have been represented so often, either by men who have lacked requisite mental or moral training, or who have had no adequate conception, through ignorance, of the ethical and social significance of their functions. Two great departments of the government have been almost above criticism from the very beginning of its history—the supreme court and the navy. In both these departments, almost without exception, only men of adequate training have filled the highest positions. In the supreme court and in the navy we have had from the earliest times trained service; expert skill has been at the command of the country in both these important fields, and the result has been a long series of signal services rendered to the state, and a great and growing respect secured from the whole civilized world.

Unlike other modern peoples we began with a great accumulation of educational results and forces. In other countries universities have come comparatively late. The first companies of colonizers who planted the seeds of civilization and laid the foundations of the state on this continent, included not only men of gentle breeding, but of university training. The scholar has been here almost as long as the explorer; he came with the earliest trader, and if he has not kept pace in his influence with the man

of commerce it has not been because he has lacked the opportunity. Colleges are older than our national life; almost as old as our colonial life. Harvard was founded in 1636, William and Mary in 1693, Yale in 1701, Princeton in 1746; thus along the seaboard, where the old world touched the new for the first time and the points of connection were made, there was a line of colleges from which, in the earliest days, the struggling young communities were fed with men of light and leading. No country in its original organization has ever made such free use of the experiences of other countries; our political system is based on the ripe experience of the whole world prior to 1776. If the generalizations of the declaration of independence could be traced back to their sources, we should find that not only France, Holland and England made contributions to that document, but Greece, Rome, Judea and Egypt as well. The declaration of independence and the constitution contain the purest and most condensed material of political wisdom, formulated first into a declaration of principles and then into a working governmental system, which men have ever had the opportunity of organizing into a new system at a single stroke. No other people has ever owed so much to its predecessors and to humanity at large as ourselves: the Greek, the Roman, the Jew, the Frenchman, the Dutchman and the Englishman have all worked, thought, suffered, legislated and acted for our benefit, and we have entered into the fruits of their labors. Other countries began at the foundation and shaped their systems under the pressure of the tremendous experiences of national life; we quietly built on foundations which others had laid for us. We are what we are in our political structure and character because we have taken our political ideas from the life of the race; and we have had the freest and widest national education because we have come late in history and have had the opportunity of going to school to all the older races. Nothing could be more shortsighted or unAmerican than the attitude of antagonism which exists in this country, not to forms of government as they are found in the Europe of today, but to the people of Europe. Nothing could be more shortsighted than the attempt to build up a civilization on this continent in isolation from the older civilization; nothing would dry up the sources of our vitality sooner than to plant deep in the hearts of our people the idea

that we owe nothing to Europe, and that we have nothing to learn from Europe. As a matter of fact we owe everything in our initial structure and our political ideas to the race in the old world, and we can not separate ourselves from the great historical movement of humanity, of which we are the product, without drying up the springs of our own national life. Education in this country is a prime necessity because education gives us the historical background, the true perspective; it makes us aware of race affiliation and of the unity of the race as that unity is revealed in religion, history, art and institutions. We could gain nothing by mere imitation of older races, but having learned so much from them, we at least owe them the heartiest cooperation and fellowship in the universal work of "training all who are born men to all which is human".

We are what we are as a nation largely because we have taken our political education from the experience of the entire race, and we have had the freest and widest national education because we have come so late into history that we have been able to take advantage of all that has gone before. What the value of these large relationships is comes out very clearly when we look at the course of vital education in the past. That education has been dependent solely on the intercourse of man with man; the isolated and detached man could go but a very little way in his training; no matter how vigorous his will, or how fine his intellectual equipment, he began to learn in a large way only when he touched his fellow. In the order of development out of savage individuality into the social life of civilization men seem to have passed first through the family consciousness; and the isolated family of the savage age was the dame school in which the race in its infancy learned its earliest lessons. Then came the time when it passed out of the dame school into the primary school by passing out of the family association into the clan association; the individual member of the savage family entering into the clan consciousness and multiplying himself by sharing the experiences of a larger group of lives. When the clan had done its work in fitting men into larger relationships, teaching them more complete self-control and broadening their ideas with the broadening of their interests and associations, the clan expanded into the nation, which became the secondary school of the race,

taking men out from the narrow interests of the clan into the manifold interests and relationships of the nation. And now, after centuries of expanding life, the nation seems to have reached its full development, and there comes another and greater era—the age of international action, when the highest unit in society ceases to be the nation and becomes the race; that inclusive and final unity in which all nations are to be included, and by the slow pressure of which all national interests are some day to be harmonized. And the race enters on the university period in its education.

It is this extraordinary movement which has come suddenly home to the consciousness of all intelligent peoples during the past three or four years, and is bringing home to us in a new way and with immense force our urgent need of the most thorough education in all fields of endeavor. Heretofore we have had our own problems to solve, and they have been so difficult that many of them are still unsolved; now we are compelled to take up the burden of solving the problems of civilization. These problems we can not escape: they do not come to us through what is called imperialism or territorial expansion; they come through the inevitable growth of our own interests; the coming together of races through increased and more rapid facilities of intercourse, through multiplying trade relations, and by means of a thousand ties, spiritual, intellectual and social, which are being created by the circumstances of modern life. However we may feel about the question of territorial expansion, we can not blind ourselves to the fact that the whole world is akin, and that whether we like it or not, we are coming constantly into greater intimacy with our neighbors and our benefactors, the older nations of the world. This higher unity which is being slowly worked out, has long been foreseen by poets and prophets and sometimes by statesmen. Its realization is still in the distant future, but the tendencies which make for it and the movements which mark its direction are so clear that even the wayfaring man can not overlook them. Toward this new unity civilized men are steadily advancing; they are drawn together in spite of themselves. It is idle to strive to keep out of the stream; for the stream is the great current of historical evolution, the movement of which has a tidal volume and power. The evolution from the unity of the family to the unity

of the race will not pause till it has been perfectly worked out; and there are many who have known something of the peculiar conditions of opinion in this country during the last 10 years who are ready to say: Better a thousand times the perils of intimacy with other nations and with the race at large than the perils of isolation or of detachment from the race at large.

No man knows where he stands or what his life means till he knows the relative positions of other men, and what they are and have done. No nation understands its own strength or weakness, or can bring its ideals into clear consciousness till it comprehends something of its historical relationships and knows what work other nations have accomplished and what point of development they have reached; for the true measure of the unfolding of the national genius and the working out of national power is the quality and magnitude of the contribution which the nation makes to humanity. That contribution may be either material, intellectual or spiritual, but nothing counts in the long run in national activity which does not mean something for the benefit of other races. The great races are those whose national life has been translatable to the greatest extent into terms of racial service; for this reason the Jew, the Greek, the Roman and the Italian stand out preeminently as the leaders and teachers of civilization. The record of what they did fills our histories, and the memory of what they were stirs our imaginations. They stand, not for mere accumulation, nor for the things which are made with the hands and counted in numerals, but for the supreme achievements of the mind and the soul: they stand for religion, morality, art, political organization—in a word, for civilization. Each nation developed its own gift, brought its own character to a certain maturity, and then each shared that which it had produced and created—its most sacred and spiritual possession—with other races. The fact that the value of the racial product and the racial life is determined by their serviceableness in the development of the life of the race is a matter of profound significance, now that all nations are drifting together, or at least are being brought into such relations that they are forced to consider one another's interests and to take account of one another's strength. The unity of the race as a definite working basis for the reorganization of society is still a long way in ad-

vance; but that unity has ceased to be the ideal of men with the prophetic sense—it is becoming a matter which the diplomatists must take into account, and the politicians must consider, because it is the shaping fact in the foreign relations of every great nation; it marks the gradual, irregular but definite transference of the conception of racial unity from the region of pure thought into that of action; and a century hence it will probably be recognized as the most majestic movement of today. The men who strive against it do not see its immense moral implications; it is the sublimest opportunity of modern history. The fact that it is possible to discuss seriously, and with a deepening sense of its practicability, a larger unity of action between all the English-speaking peoples for the furtherance of the higher aims of civilization has not failed to touch the imagination and to awaken the enthusiasm of all those who have any generosity of spirit. But no sooner had we begun to talk about the union of the English-speaking races than we realized that the synthesis was too small; there were other factors to be included. We retraced one stage in the great emigration of the English-speaking peoples and we found ourselves on English soil; but having retraced one stage it was impossible not to retrace the earlier stage, and we were carried in thought from the ripe and beautiful landscape of England to the shores of the Baltic; and the unity of the English-speaking peoples foreshadows and prophesies the unity of all men of Germanic origin. That idea is in the air today; more than this, it is in the thought and imagination of many serious-minded people; it has taken root and it will bear fruit because the great forces of racial, religious and intellectual traditions are cooperating with it.

But it is safe to predict that, when these three nations have come to understand one another well enough to outgrow their small jealousies, which are always the fruits of ignorance, and which evaporate like the mist in the shining of larger and clearer knowledge, they will feel the need of the special qualities and services of the Latin genius and character; for, whatever may be the strength of the civilization which has its roots in northern Europe, and which has come, by reason of its development of individuality, to hold such a great place in modern society, it is quite certain that the graces of life, the resources of a developed

social nature, and the ministrations of the art instinct of the Latin races can not be spared from an adequate conception of what the life of the modern world must and ought to be. We shall never stop with the union of the races of Germanic origin, nor shall we stop with a union of races which shall include the Germanic and Latin families; the Slav must still be reckoned with, and one needs but a very slight acquaintance with the Slav through his literature and his history to be aware that there is in his spirit a force which both the Latin and the Germanic races need.

Nor will this great historical evolution pause till it has gone a step farther and reunited the east and the west. Nothing appeals to the imagination with such power, or seems to carry so much of prophecy with it, as the reappearance of the east in the interest and thought of the world. It is not too much to say that the center of that thought today is in the orient, where, apparently, the decisive questions of the next 50 years are to be asked and answered; where all the great nations are face to face, not only with the most perplexing questions but with one another, in a competition which may be called selfish, and which certainly has elements of pure commercialism or pure militarism in it, but which is after all, at bottom, a new stage in the evolution of the common human life of the different races. It looks now as if the east were to be reorganized under western direction; and one does not need too much faith in human nature to believe that that reorganization is to carry to the east a larger freedom than the east has ever known in its history; for, through the rough methods of national action, and intermingled with policies which are often narrow and sordid, there run lines of influence which transcend the purposes of politicians and statesmen, and even the generous purposes of generous peoples. It is in Asia Minor, India, China, Korea and Japan that the most striking, picturesque, and perhaps the most influential acts in the drama of the world's life on the stage of the 20th century are to be set; and as out of the east came the earliest civilization in all its forms, so in the east the fruits of the long education of history, as they have been gathered by the western races, are likely to be revealed in their interior spirit and their ultimate effect. As the boy reveals the deepest impress of education, not at the col-

lege or the university, or in the professional school, but in the active work of life, when he is compelled to put forth instead of receiving, to express himself instead of taking in the knowledge of others, so the great races are likely to disclose most clearly what lies in their own deepest consciousness when they are called on at a distance and under new conditions to deal again, in the lives of other races, with the problems which they have solved, or partially solved at home.

From many points of view, the reentrance of the east as the chief actor on the great world's stage, strikes home to the imagination, and opens a vista in which no change seems too vast to be credible, and no reorganization of society too radical to come to pass. The reunion of the east and west means the completion of the circle of historic life; it marks the return of the race, after the long wanderings which constitute history from the date of the first migrations, to its earliest home, where it first dreamed the great dreams of human destiny. 10 years ago this would have seemed like a vision, though even then its realization would have evolved changes less radical and of lesser magnitude than those already accomplished and soberly recorded by historians. Today it is no longer a matter of vision; it is taking place under our very eyes; and we must be blind indeed if we do not see what it means. It is idle to contend against such a movement; it is worse than idle to protest against it and say that it ought to be checked. Men have as little to do with it as they have with the movement of a great natural force; it is simply the evolution of the energy of the races, and it is a new stage in historical development. It has been brought about, not by intention, by the foresight of statesmen or by the greed of traders, but by an accumulation, first of vital and then of historic forces. There will be profit in it, and there is no harm in the profit, if profit be not its ultimate result, or if other and higher things are not sacrificed to profit; but there will be something better than profit in it: there will be safety. If it be true that the broader the base of a government and the more inclusive its citizenship the more stable the government, it is also true that the more inclusive the organizing unit of society, the more catholic the sympathies of the race, and the more universal its interests, the greater will be the chances of peace and the op-

portunities of spiritual growth. With every broadening of national activity comes a broadening of national experience, and that means, not only the possibility, but the necessity of getting out of ourselves into the life of others. Nothing steadies a man so much as the pressure of great and noble interests; nothing keeps a man in such sanity and poise as the wide outlook which comes from contact with many and important affairs: nothing steadies a nation so much as great and weighty responsibilities; interests which are not limited by national boundary lines, but which are world-wide. This world process, like the individual process, is fundamentally educational. It may involve material gains, or it may involve material losses; but one thing it must involve—an educational impress on every race which has to do with it.

It is significant that education can never be completed or perfected at home, one has to go away for it; and one of the most beautiful things in experience is the return of the boy from long absences at school, college and university, with a new and deeper reverence for his home, and a finer and more intelligent devotion to it. It is by going abroad in the large sense that men are educated. To stay at home is to gain a certain directness, vigor and independence, but it is to miss the larger vision, to lose the deeper insight, to be out of touch with the influences which enrich and liberate. The history of great races is a history of travel; it is a story of exploration, colonization, search and adventure. It is the story of the men who go away poor and come back rich; the story of those who take their lives in their hands for the sake of pushing back the horizons of knowledge, of touching the remote regions of the world and opening them up, bringing home with them some remote and hitherto inaccessible knowledge. The great races, though deeply rooted in the soil, are always enriching themselves by searching the world for the things which make for enlightenment and power.

The secret of genius, as illustrated in every art, is to seize with absolute clearness of vision and to represent with absolute fidelity the concrete, close-at-hand, familiar thing, and then, by the magic of insight and of expression, to disclose in this intimate, familiar, close-at-hand thing, a universal principle or experience. So the great painter gives us a portrait which is instinct with

life to the very last detail of feature and dress, and the man stands before us, as real, as actual and as clearly realized as if we saw him erect and breathing before us; and yet in the very perfection of his individuality, by the genius of the artist, this man becomes a type to us, and we escape through his personality into a comprehension of a great group of human beings. In like manner a people must realize their own character, do their own work, live on their own soil as if they were alone in the world; and then by a process as inevitable as it is normal, they must enter into the life of humanity, associate themselves most intimately with other races, share in the work of the world, and find their places as contributors to civilization. Self-realization comes only through action on material outside of one's self; and national ideals and governing forces do not rise clearly into the consciousness till they are put forth, in large measure, outside the immediate sphere of national life. Matthew Arnold has said that the judgment of foreigners on works of literature is the nearest approach which we can make to the judgment of posterity. The judgment of the institutions and civilization of a nation by foreigners is often warped by prejudice and limited by ignorance; but, under the worst conditions, there is always a certain amount of truth in it, and under conditions which are growing better every day foreign opinion must possess greater and greater value; as it is based on disinterestedness it will gain in insight and authority. The influence and action of a nation on the world at large is a reflection of its character, caught in a vast mirror, and discernible for the first time by the nation which casts it; so that one of the greatest benefits which the world is likely to receive as the result of the new spirit of internationalism, will be a clearer discernment by each people of its own genius, and a clearer recognition of its own defects.

Every problem of this kind which is presented forces an inquiry into the principles on which the government at home is conducted: the whole discussion in regard to the administration in Cuba and the Philippines has really been a discussion of the fundamental principles of the American system. Those principles have been projected more definitely into the American consciousness than ever before in its history. Heretofore Americans have always acted instinctively because they have acted along the

lines of their own natural evolution; now they are compelled to act by deliberation in the endeavor to manage the affairs, temporarily, at least, of foreign peoples, and they are compelled to think out each step and to determine at every stage what ought to be done in order to be consistent with the spirit and the principles of democracy at home. Mr John Fiske has called attention to the significant fact that the application of tyrannical principles in colonial government has, as a matter of history, always reacted disastrously on the liberties of the governing race at home; on the other hand, generous, high-minded and intelligent government or direction of affairs in another quarter of the globe has always reacted on the governing people at home to give their domestic administration higher intelligence and better methods.

The supreme test of a man comes when he goes into the world and matches himself against the field, not in a spirit of antagonism, but in the inevitable and wholesome struggle to make his place and do his work; his place and his work are not to be seized by violent hands or held by brute force; they are exactly determined by his own strength and quality. The supreme test of a nation comes, not when it is struggling against manifold domestic difficulties to gain form and vigor, but when, having freely developed its force and planted itself firmly on elemental principles, it enters the large field of the world, finds itself in the competition of the races, and subjected to that searching and rigorous testing which goes on when diverse principles or methods of action are placed side by side; for the application of the law of selection is as rigid here as it is anywhere in the life of the race or the history of the globe. In the earlier stages of historic evolution, the immediate and the chief end of the movement of the period seemed to be to bring the nation as an organic force to perfection; that was as far as antiquity could go. When a nation was fully organized and highly differentiated from other nations, its destiny seemed to be fulfilled, and disorganization and decline began. It is true that the story of civilization is the passing on of the torch from one hand to another, each nation borrowing from every other nation; but the work of the older races was largely the development of the national idea, the national form, and it seemed impossible for the older nations, as nations, to take the next step; their influence could be diffused throughout the world only

when the organic form out of which it issued and through which it expressed itself was shattered. Egypt was in decline when she became the teacher of antiquity; the independence of Greece was destroyed before the spirit of the Greek genius was liberated to make the conquest of the world. Demosthenes, standing for the pure principle of autonomy, contended against the inevitable when he made his splendid protest against Philip; but, in the loss of her autonomy, Athens gained an ascendancy which no other city except Jerusalem has ever held. Dissolution went before diffusion. It seemed as if the older nations had to die in giving birth to those great ideas with which they have enriched the world.

The significance of our age lies in the fact that the principle of nationality has now been so thoroughly developed, and has so deep a rootage in historic conditions, has become so much a part of the life of many peoples, and has passed so completely from a formal into a vital force, that it is possible to take the step from the national to the international unity, without loss of national individuality, vitality, energy or quality. The decline of the ruling races of the older civilization was contemporaneous with the diffusion of their racial spirit; the Jew, the Greek and the Roman dividing the spiritual and intellectual government of the world at the very moment when political power was slipping out of their hands forever. The modern movement, on the other hand, is characterized by the higher development of nationality through contact with other races and diffusion of the racial ideals. The race which can not bear the test of meeting other races in the free field of the modern world ought to go to the wall; for the lower civilization must yield to the higher by a beneficent law, and the best types of civilization and the best forms of government are to survive, and they alone.

This is the test which every modern race must meet. It is not a question of physical strength, as it would have been at any other period; it is a question of intellectual capacity and of spiritual force: ideas are to have freer play through the world than ever before. The spirit which would take America out of this competition, keep her out of the world-field, has its rise either in ignorance or in fear. A great many Americans are still smitten with that kind of provincialism which finds safety in holding

aloof from one's neighbors and prosperity in attending exclusively to one's own business; but the business of the world is our business, family ties between the races are coming more and more to light. It is impossible to keep any section of a city in health if in one neglected quarter disease is bred and started on its fatal course; it is impossible to keep the modern world wholesome if the conditions attending the pilgrimages to Mecca still breed cholera at recurrent periods, or if sanitary conditions in Bombay and Calcutta revive the black death, the scourge of the middle ages. We shall keep our freedom not by hoarding it, but by using it; we shall preserve the integrity of our own national ideals, not by trying to build walls around them on this continent, but by holding them boldly before the whole world. Nothing could be more shortsighted than the attempt to set America against Europe; to give Americans a sense of the value of their own institutions by decrying and misrepresenting social and political conditions abroad. American conceptions of government and social order are ranged in radical antagonism to some governmental systems on the other side of the Atlantic; but even in cases in which the difference is widest, there is something for us to learn and there is nothing for us to fear from a more familiar association. We reject absolutely the underlying conception of the German government, but the German government has many things to teach us in efficiency, economy and intelligence, so far as administration is concerned. We have much to learn from Germany in the ability to call trained men into the public service; to place everywhere in any critical moment a man who can be trusted, not only to be honest, but to be capable. England has many things to teach us. It will indicate greater confidence in our own institutions when we give up boasting and are willing to go to school to any people who can teach us.

With the peoples of Europe we are in the deepest sympathy; under many governmental forms, in different stages of political education, they, like ourselves, are working out that common human problem the solution of which is the ultimate purpose and hope of civilization. There as here the tides of vital energy and many-sided activity are running with immense volume and momentum. Since the renaissance there has not been such a liberation of spiritual and natural force. The fortunes of the

race are once more at stake; the welfare of the race is on the cast. In this great arena we are forced to disclose our ideas in the searching light of action. *To Americans no conquests are possible save those which are won by superiority of ideas.* Ideas are the feeding springs of adequate action; action is the translation of ideas out of the world of the ideal into the world of the actual; these are the inevitable processes to which we must submit ourselves; and alike for the spirit and the hand, for the forces which inspire and the forces which shape and direct, education is the supreme necessity. In our new as in the old world, the highest prizes of life are within reach of the trained man alone; and in the great open field of the modern world the future belongs to the trained races.

Wednesday morning, 27 June

REPORT ON THE ORGANIZATION AND PLANS OF THE
JOINT COLLEGE ENTRANCE BOARD FOR THE
MIDDLE STATES AND MARYLAND

BY DEAN NICHOLAS MURRAY BUTLER, COLUMBIA UNIVERSITY

My part in this morning's discussion is none the less agreeable to myself because it is entirely informal. It involves stating to this convocation for purposes of record that one of the great practical problems of secondary and higher education has finally passed, in this territory at least, from the stage of discussion to that of action. And this step, so important and, as it seems to me, so beneficent, involves the recognition of one of the most far-reaching and one of the most helpful principles of education, the principle of cooperation between educational institutions having similar work to do.

At the meeting of the Association of colleges and preparatory schools of the middle states and Maryland held in December last, discussion was had of the perennial question of college entrance requirements. The advantages, and specially the disadvantages, of the existing system of diverse standards multifariously administered, were placed before the association, and the proposition was made that the association should take the initiative in

the endeavor to bring about cooperative effort among the institutions of the middle states and Maryland, for the purpose of removing a difficulty which had become most vexatious and which was preventing the best educational work being done in the secondary schools of the United States.

As a result of that discussion, resolutions were passed favoring the establishment of a joint college entrance examination board, and the association's officers were authorized to designate representatives of the secondary schools to participate in the organization of such board should it be undertaken by the colleges. As a result of that action and within a very few days a document was addressed to the president of each of many colleges in the middle states and Maryland, signed by the provost of the University of Pennsylvania and by the presidents of Columbia, Union and Cornell universities, inviting the several institutions to send representatives to a conference to be held in December to consider the resolutions passed by the Association of colleges and preparatory schools, and to take action on them. That invitation was accepted by 12 institutions, and as a result a series of conferences and committee meetings began, lasting several months. This consideration came to an end in the month of May and resulted in a report made by a subcommittee to the original conference, representatives of 12 colleges and five representatives of secondary schools appointed by the association, outlining a plan for the establishment of such a board as I have mentioned, and preparing a statement of uniform entrance requirements in the subjects, literary, historical and scientific, most used in preparing for admission to college. After a long session in which that report was considered in minutest detail, it was with a few verbal amendments unanimously adopted by the conference. It was then transmitted to the colleges concerned with a request that each should signify on or before July 1, if possible, whether it was willing to accept the plan of organization and to send a representative to the board, and, second, whether each would accept the certificate issued by such board if constituted. Replies have been received from all of the institutions concerned, and they have all answered the second question in the affirmative, and all but one have also answered the first question in the same way. It may therefore be said that the principle of the plan and

its details have been accepted by the principal colleges of the middle states and Maryland, and that it will go into operation with the examinations to be held first during the close of June 1901.

The principle of the plan is extremely simple. It is that, without asking any college to yield its independence or its autonomy in the matter of college entrance, the several colleges should themselves institute common examinations to be held simultaneously at many widely separated points throughout the middle states and Maryland, and should cause to be issued certificates as the result of attendance on such examinations, which certificate when presented at any college concerned in the plan, or at any other college willing to take the certificate, should be accepted at its face value in estimating whether or not a given candidate should be admitted to that particular college.

I call your attention to the fact that, so far as the plan has, thus far, proceeded, there is no attempt in it to supersede the separate college entrance examination by formal act. That the separate college entrance examination will be superseded as a result of the plan, I confidently hope and as confidently predict, for that is the precise evil to be remedied. But that must come about by natural process. Nor does this plan attempt to bring pressure to bear on any college to alter or to change in any way its own peculiar standards of admission. No college is required to take Greek or to reject Greek, to take advanced mathematics or to go without advanced mathematics. The examinations are held on subjects to be stated in the syllabus, and certificates are to be issued on such subjects as the candidate is examined on, and the college to which the certificate is presented will accept as much or as little of it as conforms to its standards and to its requirements. In other words, the plan is a cooperative plan for eliminating a difficulty, and not a plan for removing the difficulty by surgical operation. It is more likely to be successful because of the spirit in which it has been undertaken and because of the lines along which the policy has been laid down and will be carried out.

This board will be an executive board. It will consist of the president, or his chosen representative, of each college in the middle states and Maryland having at the time an entering or freshman class of not less than 50 members, courses in arts and in

the sciences being counted together for the purpose of arriving at that estimate. The reason for having any distinction at all between the colleges is a practical one only. There are about 80 degree-conferring institutions in the middle states and Maryland, and as practical men and women you will see at once that no solution of this problem, at once practical and effective, would have been at all possible had it been attempted in mass meeting. It has to be originated, worked out and set in motion by a smaller body of men, a smaller body of representatives, than would have been possible if each of the 80 institutions had been represented. The number 50 in the entering class was hit on, not as establishing any principle whatever and not without being subject to change, but simply as a practical rule which would probably limit the number of institutions originating the plan to a number which could handle it effectively. It has proved to be a limit which has above it about 14 or 15 institutions.

It is proposed that this board shall hold an annual meeting in December of each year. At that time it will appoint a college teacher as chief examiner for the next year in each of the several subjects of examination. It will also appoint an additional college teacher and a secondary school teacher as associate examiners. These three persons, then, prepare the questions to be used at the uniform entrance examinations in the following June.

You will observe that these questions are framed by a committee in and for each subject, consisting of two college teachers and one secondary school teacher, which means that, so far as I know for the first time in these college entrance examinations, there will be heard at court a representative of the teachers of students during their closing years of preparation, as well as a representative of those who are to teach them during the years immediately to follow. Personally I regard that as one of the great achievements of the plan and as one of the most hopeful indications of our educational advancement. The questions, having been thus prepared in and for each subject, are then to be referred to a committee of revision consisting of the chief examiners, i. e. the college teacher at the head of each of the several subjects, and the five representatives of the secondary schools who are appointed by the Association of colleges and secondary schools of the middle states and Maryland. That will be a com-

mittee of revision of 17 men at present, 12 of whom are college teachers and five secondary school teachers or administrators. It is their function to see to it that the questions prepared by the various groups of special examiners are on the whole well adjusted, that undue emphasis or weight is not laid on any special subject, that they are about equal in difficulty, and that they conform in all respects to the outline or statement of requirements which the board will issue. The action of this committee on revision on these questions is final, and those questions are to be used in the ensuing June examination. The June examinations will be held wherever there is sufficient demand for them. They will certainly be held in any college in the middle states and Maryland making a requisition. They will also be held at any secondary school within that territory which has a sufficient number of students looking forward to college work to make it worth while to appoint a deputy examiner there and to ship a set of papers for an examination at that institution. After these examinations have been held the books are to be referred to readers, who will be appointed from the college teachers and from the secondary school teachers. The books are then to be graded in each subject as excellent, good, fair, poor and very poor, and a certificate of that fact is to be issued over the signature of the secretary of the board to each student who was a candidate. The certificate will not say that the bearer should be admitted to college, the board does not undertake to usurp that function. It will simply say that the candidate has been examined in English, in Latin, in mathematics, in Greek, in physics, as the case may be, and that the result of that examination is that he has passed excellently, or well, or poorly, or very poorly; and any college which chooses may then admit or reject that candidate as it likes. If it prefers candidates who have no mark of "very poor," well and good. If it will take a candidate who has not more than one "very poor" or not more than two marks of "poor," well and good. It may do precisely as it chooses.

The result of such a plan, as you see, is to bring the greatest possible relief to the secondary school teacher, because there will hereafter be one court of last resort to which he can send his students looking forward to college entrance. Knowing the character of the examination, knowing as he will soon know by experience

that the effect of this cooperation first between colleges and second between colleges and preparatory schools will tend to eliminate idiosyncrasies and variety of administration, he will no longer have to divide his graduating classes into groups during the last half or two thirds of his closing year—those who are preparing for college A, those who are preparing for college B and those who are preparing for college C, but can hold them all together in a common field of instruction and have them directed to this common joint or cooperative examination for the middle states and Maryland. As a matter of fact, it is perfectly certain that that certificate will be accepted whenever it is presented both within the middle states and Maryland and without. I have and can give no official assurance to that effect, but I think it is perfectly safe to say that there is no college in the United States which will decline to consider a certificate issued under these circumstances when presented by any intending student.

I now call your attention to the fact that the statement of requirements which has been printed and of which the secretary of the University has a supply in hand for distribution—I call your attention to the fact that that statement of requirements makes the most marked use of the cooperative efforts undertaken during the past five years in relation to various phases of this subject. The statement of requirements in English is the common statement now in use among the eastern and western colleges alike. The statement in Latin and Greek is that recommended by the American philological association. The statement in history is that recommended by the committee of seven of the American historical association. The statement in mathematics is that recommended by the Chicago section of the American mathematical society, and on subjects which that recommendation did not include it follows their suggestions as to how such a statement should be worked out. The statements in physics and chemistry follow the recommendations of the subsections on those subjects of the natural science section of the National educational association. The statements in botany and zoology have not yet been worked out for printing, but will be worked out in the immediate future, and they also will be on the lines recommended by the subcommittees of the science section of the

National educational association. In other words, here is a proposition, first to take advantage of the cooperative efforts of the great bodies of specialists and teachers in this country, second an effort to bring together the colleges in cooperative action, and to bring together the colleges and secondary schools in common and joint determination of a matter of the highest interest and importance to them both. It seems to me fair to say, therefore, that by this action the colleges and secondary schools of the middle states and Maryland have taken a most advanced and progressive step, and that they have shown the practical skill and the sagacity necessary to translate desire and discussion into practical and effective action. I regard this step as a magna charta for secondary school teaching in our part of the United States. It means the elimination of the pressure on the secondary school of a dozen different standards, estimated and administered in one hundred different ways. It means a common standard of requirements, but covering so broad a field that the individuality of no college and of no school suffers in the least through participating in the cooperation.

I think you will also be interested to know that the statement of subjects in which examinations are to be held appealed so strongly to many college faculties that several of the colleges concerned in this effort have already taken into consideration this question: Shall we not substitute in our next catalogue this statement of requirements for admission for the one which we now print? In other words, Shall we not use the exact language worked out by cooperative effort for our requirements in English, in Latin, in Greek, in physics and mathematics, in so far as we have a requirement in those subjects, rather than continue to print year after year a statement of our own which differs just enough from the common statement to confuse and mislead the teacher and the student alike? This is the beginning, therefore, of the settlement of one of the most disputed and one of the most mooted questions with which we have had to deal in this part of the country in this field of education during the last generation, and it is a beginning of its settlement on broad, cooperative, educational lines, and personally I can see nothing but benefit to follow from the inauguration and development of this policy.

Frank H. Wood—My part in this discussion will relate primarily to conditions that obtain in this state.

All will admit that there is urgent demand for more uniformity in college entrance requirements. I judge, however, that not all will agree that the plan so well presented in this presence is a specific for the ills which we now bear. The examination in question will doubtless prove a convenience to the colleges and in some cases an advantage, specially to some few large institutions. It possibly will receive no adverse criticism from the large city high schools and special preparatory schools, which comprise the secondary school representation in the Association of the colleges and preparatory schools of the middle states and Maryland. But it is not these few fortunate schools, with their full corps of teachers, their commodious laboratories, and complete equipments, that urgently need relief. It is rather the high schools, academies and academic departments of union schools found in all of the smaller cities and in nearly every incorporated village of the state. These schools do not call for a uniformity in entrance examinations but a uniformity in entrance subjects. They ask the colleges to agree on subjects regarded as absolutely essential for admission, and arrange all other subjects in a system of equivalents. It is by no means an infrequent occurrence to find a high school of from one to 10 instructors, engaged in preparing several students for college, each in a different course, because it happens that no two are to enter the same college.

As already observed, these schools are not seeking relief of the college through a system of uniform entrance examinations, neither are they seeking instructions from the college as to methods of teaching, or as to what ought to be taught and what left untaught in any particular subject. They may be safely trusted to meet these emergencies as well as the varying conditions and environments of individual schools will permit. They do ask, however, to be relieved from teaching every subject that all the colleges, individually and collectively, are able to include as a proper subject for secondary instruction.

Again, while I am aware that the secondary schools are represented in the examination board, it is simply a respectable minority representation made up as shown from the few large preparatory schools. To all intents and purposes, therefore, it must be considered a strictly college board.

In the bulletin issued by the recently appointed board, page 8, paragraph 4, we read as follows: "This board shall have power from time to time to adopt and publish a statement of the ground which should be covered and of the aims which should be sought by secondary school teaching in each of the following subjects (and in such others as may be desirable), and a plan of examination suitable as a test for admission to college." Now whether it is the province of the college to prescribe the scope of the work and methods of teaching so far as these will affect college preparation, is at least a debatable question. It may, however, be asserted with assurance that it is not the province of the college to fix the scope of work and methods of instruction for students of the secondary schools who are not to go to college, and this is what the plan proposed, if adopted by the secondary schools, would necessitate, except in the few cases where the secondary school is merely a fitting school. Essentially all subjects of secondary instruction are included in the list prescribed. The school must adopt the syllabus *in toto* or not at all, for it would be practically impossible to have one class in science, literature, history or foreign language for students preparing for college and another in the same subject for students who are not preparing for college.

If the syllabus outlined was really intended merely as a guide for individual students regardless of the course which the school was obliged to adopt on account of its environment and limitations, and the necessity of meeting requirements prescribed by both educational departments of the state, if, I repeat, it was not seriously expected that the secondary schools would desert the regularly constituted authorities of the state, on whom devolves the duty of direction, inspection and requisite examination, for the purpose of attaching themselves to a self-constituted college board without authority in supervision and without the indispensable opportunity of inspection, and the real ultimate purpose was to furnish a guide for individual students to cram for examinations, the objection which I have just urged will no longer hold.

It would appear however, that this board seriously expects the schools generally to adopt the course, for on page 15 of the bulletin the committee hopefully uses the following language: "Each

of the above topics is intended to represent one year of historical work wherein the study is given five times per week; for the present, however, and until the schools have adjusted their courses to the recommendation of the committee, the requirements in English history and in American history may each be met by one year of work, wherein the study is given three times per week." In waiting for this general adjustment is it not probable that the board will accept three hours a week for some years to come?

Practically all of the one thousand high schools and academies of this state prepare for college. One of the excellencies of the system is that under existing conditions every village of respectable size provides a school which becomes the educational center of its locality, and, by reason of the fact that it prepares for college, becomes the special stimulus to higher education in the community. The tendency of this measure, excluding as it does other considerations than those of mere per cents, rated by some hired examiner on a fixed mathematical scale in an examination based on work the method and scope of which are adapted to and fitted for the comparatively large institutions, would be, first, to render it impossible for the average village high school to prepare for college and second, to discourage college education by rendering the college less accessible to the masses, placing it outside that movement in democratic education which has been one of the most pronounced and inspiring achievements of the century. The few would go to a special preparatory school; the many would be deprived of collegiate education. In this state, however, this danger, I judge, is not immediate, for the colleges will for the most part doubtless continue to accept present standards. It might, however, serve to prevent students from going freely to colleges in other states.

Under present conditions there is all too little recognition of the individual. Under the new scheme there is still less. It would seem that nine tenths of the candidates for college should be accepted under the existing status, on the state credentials which they hold. With the remaining tenth the personal element should be an important if not the deciding factor. Permit an illustration. Some eight years ago a young man 21 years of age applied to me as a nonresident for admission to the union school of which I

was at the time principal. A few moments of questioning developed the fact that this young man had not been in school for six years, had never taken a written examination, had pursued only the common branches, and that in a district school. A written examination would doubtless have placed him in the fifth or sixth grammar grade. But it was not my custom to rely on a written examination in such cases. The candidate exhibited a maturity of mind and thought, a training in affairs, a fixedness of purpose, and self-reliance that at once won him a place in the senior academic department without compunctions of conscience on my part. At the end of two years he graduated with a regents academic diploma. After a part of the third year in school he was prepared for college, won a Cornell scholarship and entered without examination. I am of the opinion that it would be practicable and advantageous for the colleges to apply the same principle. The college authorities certainly ought to trust themselves to trust their own judgment in analogous cases.

I firmly believe that it is all important to furnish every inducement to the country boys and girls to win a college education. Students from the small village high schools at present find it difficult to gain admission to the best colleges. Such schools positively can not give certain phases of work that these colleges call for. It would be worse than useless for them to attempt to teach what they can not teach and thereby neglect to teach what they can teach. Their graduates, however, are quite commonly trained along broad lines, trained in independent thinking, trained to self-reliant action, and are possessed of well-stored minds and well-disciplined faculties, that often enable them when placed side by side with the graduates of the special preparatory school soon to outstrip them.

It will indeed be a public calamity if the time ever comes when every school will be either stretched or shrunk to the same pattern; when the power, personality and initiative of the teacher will be lost in following forms; and when every student will be chiseled after the same model, and that model the stillborn child of college theory. In conclusion, permit me to say that in my judgment we should strenuously oppose any measure that would tend to magnify entrance examinations and heartily favor any well-conceived movement calculated to minify them.

Pres. A. Cameron MacKenzie—I am surprised at hearing my name announced as one about to give an address, that was the last thought in my mind. I had questioned some of the statements which I saw in the pamphlet representing the college entrance examinations under discussion. After hearing Dr Butler's explanation of the statements contained in it, much of my trouble has been removed. I see of course great advantage in a uniform college entrance requirement, not only in the middle states and Maryland, but throughout the country. Those of us who are receiving students from the west understand the difficulty that we have sometimes in adjusting their preparation to our requirements. They are often out of proportion altogether.

One or two things suggested themselves to me while listening to the first speaker. The high school, or the preparatory school rather, has very slight representation on the board of examiners. While it is very desirable to bring the preparatory schools and the colleges into harmony, and to bring those engaged in them to understand each other more fully, yet I fear that very great disadvantage may arise to the secondary schools because of the slight representation that seems to be given them in this new plan. It is almost exclusive in its nature. It gives representation only to a few of the larger and more prominent secondary schools, from which, I think, do not come the largest number of students entering college.

Then I notice that 14 colleges in the middle states and Maryland alone have representation on the board. This seems almost like leading to a monopoly. There are a number of colleges doing most excellent work excluded by virtue of the freshman class having to reach 50 in number. I am not sensitive on this question, for the institution which I represent has a freshman class larger than that. However, I know that others, representing institutions with freshman classes not numbering 50, feel that they are excluded from membership in the board. This applies more particularly in the state of New York, I think, than in any of the other states included. Therefore I would simply suggest a serious reconsideration of the representation on the board of the secondary schools and of the colleges with freshman classes less than 50.

These thoughts have just come to me along the line of the remarks made by the gentleman who preceded me.

Prin. O. D. Robinson—If I understand correctly Dr Butler's statement, any student presenting himself at these examinations may take any subjects on which questions are prepared. That of course removes a difficulty that many of us expected at first, that these students would come up to these uniform examinations and be required to take in the main the same subjects. But, while I believe it may be an entering wedge and one that will open perhaps a broad highway for entrance to college from all our high schools and academies, I do not think it can be put into operation to any very great extent at present. Now it seems to me that, beginning with New York city and ending with Baltimore, over a certain latitude, the whole territory is one of great fitting schools, and I should say that the high schools, small and large, which are yearly sending students to college in increasing numbers, receive very little consideration. I do not see, unless the colleges come to some sort of agreement with regard to the uniformity of subjects and a uniformity of preparation in those subjects, how we are going to succeed very well with this. To illustrate: a few years ago our classical scholars went to college without any required preparation other than Latin, Greek and mathematics, with a little English. Then one college and another began to require some science, and, in order to accommodate that demand, we put into our classical course a half year of physics and a half year of chemistry. And now comes up the demand from one of our great Hudson river colleges, where we send a great many students, that we must give them either a full year of chemistry or a full year of physics. We can not keep changing our course of study in this manner. But, if students are required to come up for examination on a full year's work when we can give but a half year, they will naturally select colleges where the requirements are more in accord with their preparation. And so it seems to me that very little has been accomplished. I am aware that the difficulties which present themselves to the high schools do not appear in the case of the great fitting schools whose whole work is to prepare for college. Furthermore, we must remember that the colleges of the middle states and Maryland are not the colleges of the majority of the students in the Hudson river valley north of Yonkers, and in northern New York. But I do not apprehend that any line however strict will make much

difference in the number of these students that go to college. The boys and girls in our village and city high schools that desire to go to college have a way of getting there, and will continue to have, and I hope there will always be colleges to which they can go, even if they can not meet the requirements of these uniform examinations. I will only add that they not only have a way of getting there when they want to go to college, but they have a way of "getting there" after they graduate from college.

Prin. Joseph E. King—I was very much moved at the lucid presentation of the work of these gentlemen who have been engaged in the recent past in smoothing the way for a system of uniform examinations for entrance to college. I was filled with admiration that the speaker was able so effectively, clearly and lucidly to present what had been done, and was prepossessed with a disposition to accept the results. A doubt had arisen which was accentuated somewhat by the speaker who followed as to the benefit of this great work to the thousand schools that may prepare a boy or a girl for college. While I think the work which, under Dr Butler and his associates, has been so well pushed forward and is drawing near to a consummation must be very beneficial over this large territory, it can not help us very materially in New York. We may incidentally get some benefit; but fortunately here exists a body which has been notably in evidence for some 38 years in calling the educators of our own state and individuals likewise from beyond our state to an annual convocation. Here exists a body which is not only wise and selected for wisdom but is parental. It is paternal to the humblest institutions, and in its system of examinations, which has been gradually growing, becoming perfected in its adjustment, in its fitness to the state of things within our borders, year after year, and which will go on to farther improvement, we are all represented. None of us can complain that we have no representation at court, for we are all the children of the regents, and they will take care of us; and, whether they shall cooperate or in a friendly manner compete with this self-appointed gild that has been working out its independent solution, we shall all of us be protected. The larger colleges, the larger preparatory schools will have doubtless that which will be of great benefit to them. We who have smaller numbers shall incident-

ally get some benefit; and meanwhile we will hold fast what is already ours through the regents and their college examination questions and their faithful service year after year. Their certificates will not be discredited, as the colleges will all be acquainted with them. Not only in New York but in the middle states and Maryland, in New England and in the great colleges of the west, they will be very glad to get a certificate from the regents. I feel grateful to these gentlemen for the great work they have done, and I admire, I repeat, the presentation of their case made here this morning. We can not antagonize them; at the same time we are not going to give up the admirable system which is so well advanced in preparing for college under the auspices of the paternal regents.

Prof. C. G. Herbermann—All of us without exception no doubt sympathize entirely with the aims and objects set forth by Dr Butler as the aims and objects of the body which has proposed the plan now under discussion. Certainly it is desirable that there should be more uniformity than there has been hitherto in entrance examination for college; and I am pleased indeed to see that the learned professor who has on many occasions so strongly advocated diversity and variety in the college curriculum, is on this occasion such a vigorous and earnest advocate of uniformity. And yet it seems to me that the plan presented suffers from many imperfections. In the first place, I think, the arguments set forth by the other speakers, Mr Wood and the president of Elmira college, as well as the gentleman from Albany, are well taken. The danger in proposing plans of this kind is that we shall have in view only what we immediately wish to effect, and not see what will be the changes farther down. Now it seems to me that a sudden change would undoubtedly affect the well-being, perhaps the very existence of many of the high schools, specially in the smaller villages and towns of the state. They have not the numbers, nor have they the means or the teachers at all times to furnish all the instruction which would be required if the plan outlined by the association were to be carried out. The result therefore would be that these institutions would be placed in a very awkward position. If they try to carry out the conditions presented in the plan, they must break down; if they try to exist in spite of it, then they will be labeled as second class

institutions. That is one of the features in the plan, which is perhaps not intended, but which is sure to work out.

I mean that, though this whole plan is intended to be voluntary and is voluntary, nevertheless, if in the end it shall succeed—and it *must* succeed, at least in the opinion of the gentlemen who have drawn the plan, according to Dr Butler's own statement—it will act as a coercive force. He himself says, "I am sure this thing will carry through; I prophesy it, and it must be so." Well, if that be so, then of course it means simply that the plan is going indirectly to be made the law. Now this is one of the objectionable features in the scheme. The state, the constitution, provides a legal way of doing all these things, that is by and through the regents of the University; and therefore, if there be need, as I think there is, of seeking to obtain farther uniformity, then the regents ought to take the matter in hand; the plans ought to be submitted to the regents. The regents differ from the power to be instituted by the plan under consideration in this, that the regents are a legally constituted body; that they have responsibility to the people; and, if their authority be wrongly exercised, there are means and ways of redress other than the good will of the persons in authority: whereas in the case of the power which it is intended to create by this movement, the whole thing being voluntary, the governing committees can do what they will, they can frame questions arbitrarily. We all have hobbies, some of one kind, some of another. These committees may have hobbies. They may favor certain movements in education. They may try to frown down other movements. What redress have we? What means of opposing them have we, unless we can control the association? The proposal made should be carefully considered. Instead of being hasty, instead of rushing matters through, we should ponder more closely how the scheme is going to affect, not only the colleges, not only the larger secondary schools, but also the smaller secondary schools, and the students who by this action may inadvertently and unnecessarily be prevented from graduating till they are 22 or 23 years of age. Above all, we should see to it that all this be done under the control and rule of the regents of the University, in whom all the colleges and all the high schools have full and complete confidence.

Prin. T. O. Baker — As a representative of a secondary school I am in hearty sympathy with the report made by Dr Butler. It is a step in the right direction. It is one thing that we have been needing for a long time, and I fear that some of our secondary school men are losing sight of the fact that uniformity in subjects is the thing that we want. We have to prepare for Princeton in nine orations of Cicero; six orations are accepted at Yale. We want our pupils prepared for any college, but we do not want half a dozen different classes in our schools leading to these different colleges. As I understand it, one of the objects of this board is uniformity in the subjects required for entrance to college. That has not been touched on by the secondary school men this morning. They have lost sight of the kernel to the whole thing. If we can secure that, we have secured a victory and the thing that we want. I can see no objection to these smaller colleges being barred from representation on this board. Surely, if pupils pass an examination required by 14 of the leading colleges, no smaller college will deny them admission. I can not see any objection to that.

Now we want these courses fixed. We want our pupils to have the same subjects for all colleges. That has been the great difficulty in preparation for college. We prepare pupils in our school for Yale, Harvard, Princeton, Vassar, Columbia, Barnard, in fact, all the colleges; and we have great difficulty in preparing these pupils. We are obliged to have a class of two or three members in one subject in order to prepare these two or three for Princeton, and so on. Now it is to do away with this that this board has been organized. Let us have this board. Do not oppose it. Perhaps we shall not have just what we want, but we shall certainly have a much better state of affairs than we have at present.

Prin. O. D. Robinson — I would like to ask another question, whether it will not be the tendency if not the intent of this board to put examinations in any subject which will be accepted by those having the highest requirement. For instance, if nine orations are required in one university and only six in another, will it not be the tendency to require an examination on the nine?

Dr Butler — The tendency of the plan, if the gentleman will be good enough to read the report, is directly the opposite.

A somewhat extended experience with educational meetings has prepared me for the compliment of lucidity and the criticism based on misunderstanding. I am perfectly convinced by what I have heard that I was very far from lucid and that this report is very unintelligible. The point of view of this report, of this whole movement, is precisely that which was outlined by Inspector Wood. It has been undertaken from the standpoint of those who believe that the secondary school is not primarily a college preparatory institution; that college preparation is an incident of its work affecting but a small proportion of its student body. It has been undertaken from the standpoint of those whose every effort has been to emancipate the secondary school from the tyranny of the college entrance examination. Furthermore, it has been undertaken from the standpoint of the public high school and not at all at the request of the large college preparatory schools. Now if you will bear with me a moment, I shall try this time to be lucid. If you will abandon theories and face the facts, you will discover that at the present time any college which holds an examination for entrance, not only does not consult any secondary school teacher, but is apt to resent his criticism and his interference. Therefore any representation of secondary schools on this board is a gain; and I may add, unless it be telling tales out of school, that we of the colleges took pleasure in urging this representation on the secondary school men against their objection, because, they said, it would put them in a position where they would be criticized. Our answer was that the interests of secondary education in this country and those of college education demand that the secondary schoolmasters participate in this examination, and that they must stand up like men and take any criticism that may follow.

As for the criticism that this plan is confined to the larger high schools and the distinctive college preparatory schools, the reverse is the fact. This plan is the outcome of a discussion at an educational meeting at which nearly 600 persons were present, representing some 40 colleges and some 200 secondary schools, high schools and academies. It is their act; i. e. the initial step is their act, and they saw that it would lead to precisely what I described a few moments ago, an emancipation of their work from an indefinite number of standards multifariously administered. Now the

fact of the matter at the present time is this, that you have not only no uniformity as to subjects, but no consistency. A college requires Latin. What does Latin mean? Here 14 colleges agree to mean the same thing by Latin. A college requires physics; Mr Robinson says one requires one half year and another a full year. 14 leading colleges say, *this* means physics, and they print it here in this pamphlet. They do not say that every pupil in the high school must study physics a year or a week, but that, if a student offers physics for admission to their college, he offers *this*, and, instead of having one page of physics for Princeton and another for Yale and another for Williams and another for Vassar, you have one page of physics for all. That is the uniformity by subjects which Mr Baker has alluded to, which Mr Wood has said is desirable and which Mr Robinson hopes some day we may attain. Here it is attained in this pamphlet. Now as to the composition of this board. Personally I would just as lief it consisted of colleges having less than 10 freshmen; but it can not consist of a mass meeting, and it must consist of institutions that command public respect. Let us be perfectly frank. You can not take any 14 colleges in alphabetic order from the list of the commissioner of education, or from the list of the regents of the state of New York, or from any other list, and have them agree on a plan of entrance requirements which any one would pay the slightest attention to. You have got to take colleges which, when they move, can exert influence. It is not in the least a question of a close corporation or of discriminating against somebody, but it is a question of getting something done; and in the interest of getting something done I have not any time to waste, and you ought not to have, with institutions that can not do that something. What will happen is this: sooner or later every college in this territory will be a member of this board. Sooner or later every college in this territory will accept these certificates. But we could not have started the plan that way. This meeting ought to be evidence of that. Somebody had to begin.

I want to repeat again that your present condition is one of the most absurd and perplexing diversity, which weighs heaviest not at all on the big high school with its staff and laboratories and libraries, which can cut up its classes so as to accommodate the

five going to Harvard and the five going somewhere else, but on the union free school with its two or three teachers, which can not do anything of the kind; and this plan is precisely in the interest of the school which has the least educational mobility. The school that is ample and large and well equipped, the Boys high school in New York, the Girls high school in Brooklyn, Mr Baker's school in Yonkers, can perhaps move around rapidly enough to keep track of these diverse and divergent and contradictory entrance requirements. But the man or woman who is in charge of the small rural high school can not do anything of the sort. That teacher and his pupils have got to stop work if the colleges will not agree that A means A and B means B, and if they will not cease setting diverse requirements in their catalogues for the sake of being individual and peculiar.

This demand for uniformity is not for a uniformity which will stretch any school course on a procrustean bed, or which will repress individuality in school work in either teacher or student. Its tendency is just the opposite, because it is uniformity by subjects, not uniformity by courses. If you will look at the statements of the certificate to be issued on page 38 of this pamphlet, you will find some 30 or 40 items. Nobody in the world proposes that any one student shall offer more than a few of these items. Surely there are possibilities here for indefinite combination in college preparation. The college which I have the honor to serve has gone so far in insisting that every graduation from any good high school course shall admit students to its doors, that, beginning with October next, it proposes to put elementary Latin by the side of elementary Greek and physics and chemistry and French and German, into the freshman year for those students who have not had it in school because they had not decided early enough to go to college.

The whole tendency in the middle states and Maryland is toward the democratization of our secondary and higher education, and this is one of the most far-reaching, one of the most suggestive and one of the most progressive steps that have yet been taken in that direction, and it is the profoundest misconception to say that it is heading in the other direction. Just so long as these great institutions stand off on their own mountain tops and refuse to confer with one another or with the schools, refuse to

agree on anything except a promulgation of their own idiosyncrasies, then you have an educational hierarchy which is truly aristocratic. But when you can bring them to terms and say to them, on behalf of, and in the interest of the secondary school, "You must agree to tell us what you mean by Latin, by Greek and by mathematics", then we have gained a very considerable piece of territory for democracy in education.

Let me call your attention to another fact that will illustrate the futility of some theories. This very week Harvard university is holding entrance examinations all over the United States, Europe, the Hawaiian islands, Japan; Yale is holding others; Princeton is holding others; Columbia, Cornell, Chicago and other institutions are also holding these examinations. They send different statements, different administrative officers, different examination questions halfway round the world. Here is a proposition for one statement, one officer, one series of questions, and that the boy who passes the examinations will get a certificate which he can take to any of these colleges. Is this an educational and an economic gain, or an educational and an economic loss? In my opinion this marks the most decisive triumph which those who believe in the high school as such, and in its work independent of college preparation, have yet gained in American education, for we have brought a great group of colleges at once to our point of view, and they now become the exponents of that principle; and there is no question where it is going to end. These are the facts regarding the proposal, and I state them because it is a matter of great importance that they should be correctly understood.

One more point in conclusion. Do not make the mistake of supposing that this is a report presented to this convocation for adoption or rejection. It has been adopted by those whom it chiefly concerns. It goes into operation at once. It is reported to you respectfully for your information and for your cooperation.

HIGH SCHOOL DEFECTS FROM THE COLLEGE STAND- POINT

Pres. Thomas Hunter—Last evening Dr Mabie chose a very large subject, which he treated ably and most eloquently. Dr Butler this morning has chosen a subject almost as large, and has treated it quite as ably and eloquently. These two gentlemen chose their own subjects. Unfortunately I have not that advantage. My task was assigned me, and it is a very disagreeable one, viz, to find defects and to find faults in our secondary system of schools. However disagreeable it may be, if it will accomplish any good, I shall not have undertaken in vain an unpleasant task.

I read somewhere that a wise old Saxon king of England conferred an honor equivalent to that of knighthood on any mariner who made two voyages to foreign parts. His reason for so doing was that he brought home information concerning other countries of great value to his kingdom. Perhaps this was one of the causes that have made Englishmen and Americans the greatest travelers in the world. This fact or fiction must have been in the mind of Shakspeare, the greatest of Saxons, when he wrote the line, "Home-keeping youth have ever homely wits." If we teachers were not kept to the grindstone, we too might make trips and voyages, and bring back to our schools and colleges knowledge which would enable us to do much better work for the young people committed to our care. We ought to be allowed to visit and examine into the work of other educational institutions—at the expense of the authority which employs us. I can advocate these voyages and trips to other schools from actual experience. 30 years ago I was sent out by the board of education of New York city, at its cost, to examine into the condition of the normal schools of New York and neighboring states. During six weeks I traveled by night, mostly, and visited schools by day, and what did I find? With one or two exceptions, I found professional training based on a very narrow and limited education and a cast-iron system of instruction in object teaching which was absurd. I do not take up the ashes of these defects which existed a generation ago in any spirit of faultfinding, but for the purpose of showing that my opportunity and privilege

to visit one important branch of the secondary system of schools had most beneficial results, in that it created in my mind an unalterable determination to base professional teaching on a broad and liberal education.

This statement in regard to the normal schools of 30 years ago brings me to the defects of the secondary schools in general. But in justice to the former it is only fair to say that there has been vast improvement since that time, owing to the influence of such men as the late Dr Sheldon, Dr Milne of Albany and many others. In pointing out certain defects in the secondary schools, I must confess that, because of the fact that I was not sent forth at the expense of the board of education to visit and look into their administration, my knowledge of them is far from full or complete; it is limited to Greater New York and to some of the southern counties. Hence I crave your pardon for any inaccuracies which may appear in this short paper. The defects seem to be as follows:

- 1 a lack of uniformity in the course of study;
- 2 the admission of students from the elementary schools solely on the certificate of the principal;
- 3 imperfect preparation for the secondary course of study.

Doubtless many efforts have been made to establish uniform courses of study for admission into the high schools and colleges; but the fact remains that wide differences still exist. Some candidates for the secondary department were well prepared in mathematics, in natural science, in French and German, but they had never studied Latin; others had studied Latin and no modern language; some were deficient in mathematics and far advanced in other subjects; while a few seemed to have given their attention to natural science and to little else. Hence there is great difficulty in grading and classifying such students, specially in large cities, owing to the pressure of numbers. Recourse must be had to those troublesome things called "conditions"; and these "conditions" not infrequently retard, if they do not prevent, a successful college career. It is not unusual for a student changing from one high school to another to lose six months or a year in his education; and this loss of time is often a very serious matter to self-sacrificing parents anxious to give their children a better education than they themselves have received.

Observation leads me to the conclusion that the college does not suffer so very much from defects in the secondary schools, except in so far as the latter have suffered from imperfect preparation in the elementary schools. This weak foundation endangers the safety of the two upper stories. The high schools should not admit students solely on the principals' certificates. In large towns and cities, there are principals and principals. No doubt every principal honestly thinks his own candidates thoroughly qualified for the secondary studies. But one principal has a decided taste for mathematics, another for natural science and another for language; and unconsciously this taste will force chosen subjects to the forefront. This intensity in one department of study is commendable, and, if controlled and directed by a higher power, will make a better principal. But experience shows that of all school officials the principal of the elementary school is the most despotic. The great majority of his subordinates are women who look up to him with awe and veneration, particularly if he is an expert in any department of human knowledge. The principal of the high school and the president of a college for their benefit are controlled and directed, and very much controlled and directed, by their expert subordinates.

In regard to the third defect—imperfect preparation—the trouble arises not so much from lack of knowledge as from immaturity, both of body and mind. You have all had experience with the unnaturally clever child whom the French call the *enfant terrible*, who, like the early flower, is sure to wither. It is the duty of the teacher to relegate this precocious genius to the farm for a year or two; or, if a girl, to let her amuse herself with music or manual work. It is a crime to permit a bodily weakling to enter the secondary school. In the hurly-burly of the "strenuous life", Americans, as a rule, are apt to go too fast, and push their children beyond their physical capacity. This is specially true of Americans by adoption. The student strong of body, though sometimes slow in his work, will win the race in the long run. Not infrequently it is the dull boy, who learns with difficulty and retains with effort, that grows into the superior man. Many notable cases may be cited in proof of this assertion. Adam Clark, the great commentator on the Bible, Adam Smith, the author of the *Wealth of nations*, and Walter Scott the

Wizard of the north, were pronounced stupid boys by their brilliant schoolmasters. Doubtless these three "stupid" boys had as classmates several precocious children who withered into unknown graves or survived as "might have beens", the promise of their childhood and youth destroyed by chronic ill-health. They became good illustrations of the unknown Miltons and Cromwells of Gray's immortal elegy. This admission of immature students to the high school, often on the strength of their memories, is a crime and a sin. It is sure to injure the secondary school, and whatever injures the secondary school must injure the college; but, worst of all, it is certain to injure the students themselves. It is easy to criticize and find fault and it is neither profitable nor pleasant unless reform can be effected by pointing out defects.

The board of regents of the University should possess the power to enforce a uniform course of study for admission into all the secondary schools supported in whole or in part at the public expense. Perhaps it already possesses this power; but, if so, it does not exert it in all cases. No person should be allowed to enter the high schools under the age of 14; nor without an examination conducted by the authorities of the school to which he is admitted. This would strengthen the secondary school and the college, and enable the regents to shorten the time in either the one or the other. The elementary school should accomplish two purposes: it should prepare a boy or girl to enter on the stage of life with a fairly good English education, and, if fortunately situated financially, to enter the high school so strong that there is little fear of failure.

Having been principal of an elementary school in the city of New York for 12 years, I may venture to suggest a course of study which would accomplish the purposes just mentioned.

- 1 English composition (including letter-writing and business forms)

- 2 Elementary bookkeeping (including penmanship)

- 3 Geography (of the world, including political, mathematical and the elements of physical)

- 4 History of the United States (including as much of English history as would enable the student to understand the settlement of the colonies and the revolution)

5 English grammar (with construction and analysis of sentences and parsing)

6 Arithmetic (completed, minus certain obsolete parts)

To these should be added

1 Freehand drawing, twice a week

2 Manual training, chiefly to teach the use of tools, twice a week

These two subjects with bookkeeping and spelling to be school exercises.

With such a preparation—such a foundation, a three year high school course followed by a four year college course, or, better still, perhaps, a four year high school course followed by a three year college course, ought to be amply sufficient to enable a young man or young woman to begin the study of a profession. As girls mature earlier and are more faithful workers than boys, I would strongly recommend that either the secondary or the college course be shortened for them by at least one year. A preparatory course of study extending over a period of eight years before entering on professional studies is too long. It may be good for the wealthy, but is hard for the poor. As one of the regents, St Clair McKelway, has remarked, such an extended course would have prevented two of New York's greatest lawyers, James T. Brady and Charles O'Connor, from being admitted to the bar!

Having had occasion lately to search the biographies of some of America's most distinguished citizens, I found that most of them, like Edward Everett, John Jay and Daniel Webster, were graduated under the age of 20, Everett at the very early age of 17. But these great men did not devote half their time to athletics and society. It is all very well to say that the college course of their day was little better than that of a good high school. But whatever it was, it was thoroughly accomplished; and it was not pretentious.

At the risk of being considered behind the age, I confess that I have a strong and abiding faith in examinations, wisely and sparingly conducted. Two examinations are indispensable, one for admission and the other for graduation; and every promotion to higher grades should be by a combination of class marks and the results of a written examination. Our duty to the new

student is first to ascertain beyond doubt what he knows and what he does not know of the subjects of study he is about to commence, and then "proceed", according to one of the best axioms of teaching, "by easy steps from the known to the unknown", just as in the solution of an algebraic equation the known quantities are placed on one member and the unknown on the other, before we discover the value of the unknown in terms that are known. Otherwise the teacher is working in the dark, and the student may be placed in deep water without the ability to swim; or he may be graded below his attainments and thus lose time and interest in his studies. A thoroughly well prepared examination paper is eminently instructive, and like the best poetry, not so much for what it teaches as for what it suggests. I repeat that by examination and examination alone, conducted by the institution which receives the new students, can there be certainty of fitness for the higher studies.

I speak from experience, and experience is a great teacher. A few years ago, when pupils were examined to death by class teachers, principals and superintendents, a great hue and cry was very properly raised against such preposterous treatment. But, as usual with all reforms, the reformers went too far, and the examination almost disappeared. In our profession there are always men and women ready to fondle every new fad, whether it be absurd object teaching, or vertical writing or the intensive study of psychology as an aid to pedagogy, which perhaps is just a little incomprehensible, and all the dearer because it is obscure. These people exclaimed, "Away with examinations! They are useless; they are an abomination." This current was flowing so strongly and rapidly that I was carried off my feet, and recommended my executive committee to abolish examinations in all grades between the lowest and the highest. Some of the ablest members advised me against such a course; but they advised in vain. And what was the result? As Shelley says, I learned in suffering what I taught in song. At the end of the first year, I found, to my extreme mortification, that under promotion by class marks alone the scholarship had fallen off to a considerable extent. The faculty considered the matter and thought that the sudden change caused the deterioration. They concluded to try it another year, but, alas! the second year was worse than the

first. There was nothing for it but to go before the "ex. com." and exclaim, "Mea culpa! mea culpa! Please restore the written examinations for promotion." They were restored, and not a member ever said, "We told you so!" This was generosity for which I have always felt extremely grateful.

You will kindly pardon the too frequent use of the personal pronoun I; but, as so much of this paper is the result of practical experience, I could not well avoid it. In pointing out the defects of the secondary schools, it need not be said that I had malice for none, but charity for all, and that my sole desire has been to make this important class of schools—in some respects more important even than the colleges—as useful, efficient and perfect as possible.

Pres. George E. Merrill—Pres. Hunter has already said how unpleasant it is to be set to find fault with anything. In fifty years or somewhat more of residence in this present world I have found two or three things at least with which it was easy to find fault; but with our most excellent high school system, specially with its best exponents—and every system ought to be judged by its best exponents—I have found it difficult to discover those defects which should satisfy those who appointed me to the task of speaking on the faults of the high school from the college point of view. I may say, however, that the preceding question and its argument have anticipated exactly what I wanted to say on this subject. We have found that the chief difficulty with the high school, with reference to the college work, lies directly in the spot that is reached by the action of the committee of conference whose report Dr Butler has presented to us this morning. Yet it is true that that report affects the colleges just as much as it does the secondary schools. If I may speak freely of what we find at Colgate university, inasmuch as I am not as well acquainted with any other at present, and as I believe every man ought to speak of that which he knows best, we have found there such an indefiniteness of preparation in those who come to the college that it has been impossible for us to receive the applicants with any degree of uniform confidence, no matter what certificates they have brought to us. Representing all grades of high schools, from the best in the largest cities to those that are comparatively poorly equipped in some of the rural towns, it has

been almost impossible for them to be received on an equality in college instruction. We have been for several years compelled to maintain what we call an academic class in mathematics; we can not in many instances allow men to enter on the grade of work which we give in the freshman class. We make a division of the freshman class, and every year certain of the men that are received are placed in this second division and kept there for a time, till they are able to enter on study with their classmates. Of course it hampers the college work just so much; it keeps those men out of grade with those with whom they are classed in the catalogue; for a time it destroys the even tenor of college work; and it is a very serious defect that we have to meet. The principal of the high school in Albany, in speaking here this morning, said that a few years ago preparation for college consisted, and indeed in some instances at the present time it consists, of so much mathematics, so much Latin, so much of this, that or the other study, "a little English", and so on. That "little English" was thrown in, in the most inconsequential way. As a matter of fact, conditions are such in New York state today that Colgate university has the one rule that, whatever a man may bring in the way of certificates for admission to the college, showing that he has passed all examinations, he must be examined in English. He may bring credentials covering everything, including English, but, no matter what school he comes from, he has to pass a special examination in English before he can matriculate at Colgate university. That I think, Mr Chancellor, will meet somewhat your desire. In this plainest and simplest of requirements, that ought to be put on such footing, at least in our secondary schools, to say nothing of the elementary schools, that there could never be any question concerning it, there is the largest fault, and the greatest difficulty, that we have to meet.

Now these are but illustrations of the general subject with which I am dealing. The high school is a public school; it has the advantages of a public school; it has the disadvantages. That is an important subject, but the subject we are discussing now is the faults of the high school from the college point of view. It is not from the point of view of the man who is going into business; it is not from the point of view of the general citizen who wishes his son to be well up, let us say, in the physical sciences and cares

not a whit whether he knows anything of Latin or Greek or any of the other things that would particularly fit him for college: our subject is what is the fault from the college point of view. Now the high school is a public school, and must meet all the demands of its constituency. It is only a small constituency that requires of the high school such work as will send its boys well fitted to college. It follows that much of the work of the high school must be of varied character, so that comparatively little force can be put on distinct college work. This is a fault of the high school as we see it from the college point of view. It is a necessary thing that all of this work shall be done, but *from the college point of view* it is a necessary thing that men shall come to the college door well prepared to take up college studies and to pursue those studies with college methods.

Now, referring for a moment to the former subject under discussion, which, as I have said, is also really this subject, we can show that the action taken by the committee represented here this morning by Dr Butler is going to meet exactly this greatest difficulty in the preparatory school with reference to the college.

It will meet it from both ends at once. It will compel the colleges to agree on a definite standard for admission to their doors. On the other hand, it says to the preparatory school: Now that we have agreed on this, now that it is determined what is meant by Latin, what is meant by Greek and what by mathematics, we are going to hold the men from your school that come to our doors to this standard. Anything that acts along the line which ends in coherence is a gain. Anything that produces definiteness of action is an immense advantage; and at Colgate we have been glad from the beginning to stand with those who are promoting this movement, and we are glad now that so many schools have accepted it. I am very glad that Colgate is one of those institutions that have entered most completely and heartily into this agreement, and it will cooperate with this board in its arrangements for its standards of admission.

Now, if we can bring together our colleges, and if we can unify our secondary schools, we shall not only help the strong schools, but shall help the weak schools to do away with this indefiniteness and incompleteness of preparation. Take for example the union school in the town of Hamilton, where our college is situ-

ated. I believe it is generally conceded to be one of the best. Indeed to some of our best colleges its students are admitted without examination on the certificate of the principal. Now let us take that school. It can not do the work that a school with a large equipment of teachers can do; nevertheless it must meet the requirements of the community in which it is placed. It represents that constituency and must supply its wants. But some boys and girls come to that school for preparation for college. Somehow or other in that school such a preparation must be given to those students as will enable them to enter a good college, otherwise a part of the constituency has a right bitterly to complain. Now it happens that a splendidly equipped academy can do the work right alongside that school. Here are these endowed academies all over this state of ours. Some of them are doing very superior secondary school work. Now the union school or the high school that can not do this work is going to send its boy or its girl inevitably to the school that can do it. The main question then is whether our public school system shall avail itself of every circumstance that arises, like the conference that is building on this system a uniform entrance examination, to correct its deficiencies and to make its work what it ought to be.

There is one point not touched on this morning at all, and perhaps not likely to be touched on in this convocation. We have been speaking almost altogether concerning the work done in the studies of the school. I do not concede that that is all that a secondary school ought to stand for, or all that any school ought to stand for. I will tell you one thing that we find in college life which we regret, that boys do not come up to us from the secondary school with that habit of self-command and of self-propulsion, which, in whatever undertaking they give themselves to, whether it be study or not, will prove them to be men of fiber and men of strength that will be masters of the situation. I suppose it is so in all colleges, I know it is so in our college, that a great deal of the force and nerve of the faculty has to be put out in simply getting a thing done. It is not enough that we shall hold before the men in college a splendid curriculum, that we shall give them opportunities such as any American youth ought to prize, with magnificent libraries and laboratories at their disposal, a great amount of moral force has to be exerted to get

the American boy to stand up and do what he ought to do. Now the question is this, whether the remedy, and therefore the fault, does not lie far back of the college, in the preparatory school, whether perhaps in the school too much time is not taken in the mere book work, in carrying out the curriculum, and less time is devoted to the personal character of the pupil than ought to be. The accomplished principal of our great high school in the city of Buffalo, a school the equal in size perhaps of two or three of our smaller colleges combined, said in my hearing this very week that he counted it one of the great privileges of his life that he could bring to bear on the boys and girls in his school in the city of Buffalo, numbering from 1200 to 1500, the moral reserves of life; could make them feel something of spiritual and moral force as they should begin their life work. Now it seems to me that our secondary schools sometimes lack in this, else we should not see in the college that lack of nerve, of fixed purpose and of moral energy, that often compels the whole force of the corps of instructors in the college to be exerted in order to make the man *go* at all. I leave it to you to say for yourselves whether you have observed this in your school or not. At any rate we in the college feel like welcoming any new movement which shall help us to men well equipped in moral strength, as in mental furnishings. I do not care whether we are represented on this board or not (at present we are, but let that go), if a raising of the standard shall bring us fewer men but better men. Let the entering class drop down below 50, but let it be that Colgate university, if it be not a great college in sense of numbers, shall be a good college, one of the best that the land can show. I believe if men would take a view of the situation like that, they would welcome any advance such as was proposed in the report of Dr Butler at the beginning of this session.

Chanc. Upson—Will you permit me a word of personal reminiscence in connection with the point raised by the last speaker? Many of you may know that 25 years of my life were spent as a professor of rhetoric in Hamilton college. I found that, through the professor of rhetoric, the training given to a young man standing up in our college chapel with me and the whole body of students there—I found that that training gave the young men the very self-control largely to which the speaker

has alluded. I think that during my time there as professor of rhetoric the graduates of Hamilton college surpassed all graduates in this state at least for that directness, that ability, that self-control, to stand up before a great audience and express their ideas, and to meet this one and that one here and there, and have that perfect self-control to which the speaker has alluded.

COLLEGE DEFECTS FROM THE HIGH SCHOOL STAND- POINT

Prin. Charles W. Evans—I recall very distinctly that the earliest ideas along economic lines which came to me and impressed themselves on me were in regard to the relation which exists between the farmer and the merchant. I had observed that the farmer took his produce to the merchant and asked what the merchant was paying for produce, and, on buying goods in return, asked what the merchant was charging for the goods. Some such relation as this has existed during many years between the high schools and the colleges. The high schools have had nothing whatever to say about the kind of preparation which should fit a student for the farther duties of his life. It has not seemed to make any difference what course of study the combined intelligence and ability of the teaching profession has advised as adapted to the wants and needs of the young man entering on the practical walks of life. There must be a specific requirement, established by a college along more or less arbitrary lines, without the pursuit of which the doors of learning for him were closed. Now of course I realize the fact that any criticism which might be made on our colleges and their work must either be very broad in its statement or to some extent local in its application. This suggests the limitations necessary in a discussion of this kind. I had thought to call attention to one or two phases of the subject presented in your hearing by Dr Butler this morning. I certainly am very glad to realize and recognize that a decided movement for the better in the matter of admission requirements is engaged in by some of our leading colleges, for it is well known and understood that the matter of admission to college has formed one of the tenderest points in our relations

with them as secondary schools. I welcome the change that has been made so far as it goes, but in my humble judgment the change thus far suggested does not represent the vital point of the difficulty from the standpoint of the secondary school. It is all very well that we should have admission to college made uniform; that those requirements which are sufficient for admission to one college of recognized standing should be sufficient for admission to every other college of recognized standing. It is for the advantage and for the interest of the colleges that this should be so; but I understand that the colleges have been extending to the students who enter their various classes the principle of election. We have advices from very many sources, at the head of which is the illustrious president of Harvard, who I understand believes in the extension of the principle of election. Now it is very difficult for some of us who are engaged in the work of secondary instruction to understand why this matter of election should not be to some extent extended down to the preparatory school. They advise us to make use of it in our own work, they encourage us to do so in the formation of the courses of study for our own students. Why then should not the principle of election be extended to some extent to college entrance requirements? I do not understand that the arrangement at present in contemplation by the representatives of our colleges, which was described by Dr Butler this morning, contemplates any very great relief in the work of the secondary schools along this line. So far as the high schools are concerned, it is unimportant who conducts the examination, or who makes out the questions. We are entirely willing and glad to have a college board make out the questions for a number of colleges. Personally I believe that it should be one of the first duties as well as pleasures of this college board to recognize, for all the subjects in which they are claimed, the examinations which are given by the great organization under whose auspices we are met here today. I do not understand why our students should take the regents examinations and also the examinations of the college board. I should have the regents examinations recognized in the early history of this college board, and hope that it will be so. But a difficulty remains after all this has been done. We are perfectly willing, as I have said, that you should establish what-

ever requirements you desire for admission to college. We do not care whether you require six orations of Cicero or seven or nine. It is immaterial to us whether you require plane trigonometry or only plane and solid geometry. It is not at all a matter of concern to us whether you require three years' work in history or two or four. We will do the work that is set for us if you will establish some degree of uniformity according to which work can be done. We must now have a class in advanced algebra for one institution and a class in solid geometry of one or two members for another institution, a class in the *Odyssey* for some other institution which does not accept the *Iliad* and so on till we have, not one class preparing for college, but 10 or 12. That is where the difficulty bears hardest on us in the matter of entrance requirements; and I suggest and recommend to the board having this matter in charge that they fall into line as far as possible with the recommendation of the committee on college entrance requirements of the National educational association, allowing units, or norms, as the committee calls them, recognizing any study that is set for any recognized college as constituting a part of the college entrance requirements and permitting a student to enter college when he has completed a certain number of these units. That would simplify the work to a great extent for the secondary schools. It would make it possible for us to meet a very high grade of requirements. The difficulties along this line are such as will be readily appreciated by all of the schoolmen present, and this is the problem for the solution of which we are seeking assistance, in the solution of which we are asking the members of this college board of examination to help us.

There are some other matters that might constitute just grounds of criticism. I believe farther, in this connection, that preparation for the best colleges of our country should be based on such a high school course as will furnish the best preparation for life. There should not be separate courses of study for admission to college. The course of study fitted to prepare a boy for entering on a business life, and on social duties, should be just as high, as extensive and as inclusive as that which is required for preparation for college. I would have courses of study if possible arranged along such lines that, when a boy has taken

a course of study and finds the way to college opening up to him, he will not be required to spend one or two years in special preparation for any of the higher institutions of learning. I incline to believe that a great deal of the criticism that is made by business men arises to a large extent from the fact that our colleges have been too self-centered in their requirements, have not kept their fingers on the business pulse of the world, have not taken into consideration the changes along every other line which they must meet or subject themselves to criticism that will be increasingly strong and increasingly uncomfortable as the years go by.

There is too great a break in the transition from the high school to the college. There is altogether too great a difference in the methods which are employed, and I was very much pleased to hear the last speaker in behalf of the colleges call attention to this fact. I had intended to speak of it. We are conscious that a great responsibility rests on us for the development of the character of the boys and girls committed to our care. Every high school principal who is modern in his way of thinking and progressive in his style of work understands that there rests on him, not simply the responsibility of conducting a certain number of recitations and maintaining a certain sort of discipline, but also the greater and more noble responsibility of seeking to develop such elements of character and qualities of strength as will enable the student to withstand the temptations that will come to him, not only in college but in business, professional and social life. This is a part of our work, and it is the part which we should most like to have correlated with the work in college. Now a boy who enters the ordinary American college is thrown very much on his own responsibility. He enters on a different world. He finds temptations besetting him on every hand, to which he sometimes yields, and I believe that a great many of our colleges are not careful enough to throw the proper safeguards around the moral and social interests of the boys committed to their direction. Some of them even express the belief that these matters are none of their concern; and a principal who has worked faithfully four or five years preparing boys for college, and has reason to believe that their characters are pure, their motives honest and upright, and that they are pursuing such paths of virtue and honor as promise great success in life is sometimes surprised at

the end of the first term to perceive the deterioration of character marked strongly on the boy whom he sent to college a few short months before. The colleges come back at the principal with the intimation that there must be something defective in the training which he gave that boy if he did not impart to him enough strength of character to last through the first three months in college. It does not matter how much hard work we have done to that end, the truth remains that the character of no boy of 18 years is sufficiently formed to turn him into the world, to allow him to go without any safeguard, without responsibility, without restraint of any sort, and expect that he will be at all times proof against temptation. There is no period in the life of a boy when he is so susceptible to influences of any kind as before 18 years, but all the precept, all the example and all the teaching that it is possible to give may come to naught, notwithstanding this susceptibility. It has been said that the college is the world, and the boy must make his own way in the world and stand on his own responsibility. I deny that the college is, in any sense, the world, or an imitation of the world. The conditions that surround college life are to a great extent ideal, and no more resemble affairs as they are in the world than light resembles darkness. The college is simply an extension of the school, and it is the duty of the college to see that the highest forms of training which pertain to the public school shall be continued in the character and life of the boy when he comes under its care. The college professor does not enter so intimately into the life of the boy as the high school principal or teacher, and this, I think, is a mistake. It is one of the pleasantest memories of my own college days that I was permitted to enjoy intimate and frequent association with all the professors with whom I came in contact. I look back on the hours spent in the homes of those professors with a great deal of tender association and of pleasant memory, and I know of nothing that occurred in all my classroom exercises or in all my associations with the college authorities that was anything like as valuable to me as the hours that I was permitted to spend in heart to heart conversation with the professors in their offices or in their homes. It is the duty of the college officers to deal with the unit and not with the mass and to have a personal interest in each one who comes to their doors; to

see that personal development takes place along such lines as the particular merits of each case shall seem to justify. I regard it as a sacred duty of the college professor and of the college president to have an oversight over the social and moral duties of the students intrusted to them. They are able to solve the problem very quickly by saying it shall be thus and so. They have the power, the commanding influence, the personal advantage, that enable them to do these things quickly and effectively; and the college professor is coming short of a sacred duty if he allow himself to say that the moral interests of the student are no concern of his.

Some minor criticisms might be made on the conduct of students in college in relation to the faculties. I will mention one or two very hastily. I do not approve the custom in most of our colleges of allowing the boys to cut recitations and cram for examinations. I wonder how the manager of a bank would feel to have half a dozen of his men absent some day without any notice, when he was going to have something particularly difficult to attend to in the matter of business. Now I hold that the development of business qualities is just as essential as training in Greek or Latin, and there is absolutely no reasoning which will justify any such course as that. Let each case be treated on its merits, but do not allow the boys to cut their recitations or cram for examinations. In this lies one of the greatest criticisms that can be made on college work. We send the boys to the colleges with their characters unformed. We intrust them to you as a part of our communities, as a part of our families. We should like to have them come away in at least as good a condition as when we committed them to you, and we look to you to see to it that the kind of influences which will keep our boys along the paths in which we have started them shall be put into active operation, to the end that loftier ideals of citizenship, higher conceptions of character and nobler theories of manhood may be the result of our combined and united efforts.

Sup't Darwin L. Bardwell—Mr Evans has, perhaps, sufficiently emphasized the serious consequences to the high schools of the present wide diversity of requirements for entrance to the leading colleges. Were there any good reason for this diversity, the case

would be different. But when individual preferences and idiosyncrasies inflict positive hardship on high school student, teacher and principal, it is about time to expect relief. One boy elects X college, another wishes to enter Y, a third has turned his eyes toward Z, and a fourth is planning to enter W, while 30 or 40 others are divided in their choices between 8 to 12 institutions, each one of which calls for some peculiarity of preparation; yet all of these must be provided for in the general program of the school, and at the same time each must receive the individual attention which his case demands. This condition calls, on the part of the principal and his associates, for both time and strength which might better be given to the more serious and weighty tasks of instruction and inspiration.

But the Association of colleges and preparatory schools of the middle states and Maryland has undertaken to remedy this evil. Let us hope that it will arrive at an early and efficient cure. Before leaving this point, however, I wish respectfully to call the attention of the proper authorities to one feature of the present entrance requirements in English. Among the selections set down for particular study is Burke's *Conciliation with America*. Now Burke is a past-master of close logic and concise statement. His sentences are packed with thought and closely woven together. This address was intended for the careful consideration of men of mature minds and trained judgment. It is argumentative oratory of a very high order. I do not speak from the standpoint of an experienced teacher of English, but rather as an executive and supervisor who tries to link some thinking with his observations. My opinion, made up in this way and reinforced and encouraged by the testimony of a number of the best teachers of English in the state, is that Burke is college rather than college preparatory English. Let the critical and careful study of Burke and such literature as his be left for the colleges. High school students can use their time to a greater advantage in other fields of English study.

The other points emphasized by Mr Evans I will pass by, leaving them for the support or rebuttal of later speakers. My next point is this: the transition from the preparatory school to the college is too abrupt, and in far too many instances is not of the right sort. In our better high schools, at any rate, the great ma-

jority of the teachers are men and women of undoubted scholarship and thorough professional training. Years of successful experience have added force to their instruction and influence. The growth and struggles of the student are watched with sympathetic and trained eyes. On graduation from the high school, the youth enters college, where he too often finds himself under the exclusive care of young and wholly inexperienced tutors, whose selection for the places they hold has depended solely on brilliance in scholarship. They are enthusiastic, but from the standpoint of their own ambitions only; they have not learned that a fundamental qualification of the teacher is that he shall translate himself to the standpoint of the pupil whom he would lead. Many a boy enters college under these conditions only to find that the instruction he now receives is decidedly inferior to that he had been enjoying before he left the high school. He is lost in the mass; he misses, perhaps unconsciously but if so all the more really, the friendly word of warning, direction or encouragement; he is dazzled by the allurements to sport or idleness; high respect for his teachers—such as he has always heretofore maintained—fades out; the slight lapses from faithful work now become more frequent. The result is seen at a glance; he who might have become a strong man is spoiled in the making, the product is mediocrity or worse. Some of our leading colleges and universities are now placing their strong and experienced teachers with the freshmen, quite as much as with the higher classes. But the custom is not as general as it ought to be. I make bold to say that the very best instructors and professors of the whole college faculty should be assigned to the lower classes. This assignment should be considered the most honorable one, as beyond a doubt it is the one which presents the greatest opportunities of usefulness. With the lower class men the instructor has a better opportunity to rise to the dignity and power of the teacher and leader; the men in the upper classes have thoroughly learned the environment of their student lives, they are able—or they ought to be able—to walk alone and with little guidance. The tutor and laboratory assistant can here find a splendid opportunity for himself, without doing injury to others. As matters now obtain in this particular, in too many of our colleges and universities, from a purely professional standpoint, the requirements of

teachers of high school pupils are materially higher than are the requirements of teachers of lower class men in college. This is my second point.

Many colleges have a custom of reporting back to the preparatory school the record of the earlier work of the student in college. The custom has great possibilities of helpfulness to the authorities of the secondary schools. But these reports are frequently so general and lacking in specific information as to be of little practical aid. Some report that, of the total number of students who have entered their college from a given high school, a certain number are doing satisfactory work in everything, while another certain number are failing in one or more studies, without giving any information as to where the weakness occurs. Other institutions, notably some of the New England colleges, report the students by name and their work in detail, coupling with the report recommendations relative to the preparation of students who in the future intend coming to them. Reports when given in this way are very helpful, and, if they could obtain more generally, much good would result to the high schools and later revert to the colleges.

For the best work both by secondary and higher institutions each should know its own ground and be content to do its own work in the best possible manner. High schools should not strive to occupy the field which belongs distinctively to colleges. They are supported by public taxation, and it is not just to the taxpayers, public school officials or the colleges that they attempt to do college work. They have all that they can do well if they keep in their legitimate field. On the other hand, colleges should not attempt to do work which belongs to the high school. For them to do so can result only in weakening their own strength and influence and injuring, for the time being at least, the high schools. Teachers of secondary schools are, I am sure, quite willing to do their best to measure up to the demands of the preparation asked by the best colleges. If the amount of preparation given is too much, high school authorities will, I believe, show a willingness to lessen the requirements of the high school course, grant diplomas to students who have completed the work required, and leave such as elect to do so, entirely free to enter college. Colleges have it in their power by the position which

they hold practically to dictate the requirements for high school graduation, in the classical and scientific courses at least. But, when that standard has been set, it is not fair for college authorities to make a canvass of the high school students in the lower classes, in order that they may, if possible, persuade certain ones to enter college before their high school course has been completed. Yet certain colleges of the state of New York are doing just this thing. This, to my mind, is a defect so serious that the colleges, themselves, ought to demand that the practice shall cease.

One point more. Ever since I began to have part in the work of school supervision, I have heard complaints from teachers that the pupils whom they have just received are not properly prepared to do their work. The teacher of the second grade joins with the teacher in the high school, who in turn unites with the college professor in the chorus. Every superintendent and principal of experience will bear witness to the truth of this assertion. Where a condition is so general, a common cause is probable. To say that this common cause is a real and universal deficiency in the work of the teachers below is to indict every teacher in the educational ranks, except those of highest university work. And these escape only because there are no critics above them. The proposition proves too much. We must look farther.

Every teacher is—or should be—superior in mental grasp and intellectual horizon to his pupils. The effort is constantly required of him to transport himself to the view-point of his pupils. He begins work with a class in September, and remains with them till June. He has kept with them in their struggles; he has grown with their growth. He says farewell to them, and receives another set. Naturally though unconsciously, he compares these with those who have just left him. Quite properly, the result is to the apparent discredit of the new students. Were it not so, the teacher ought to be alarmed for the success of his work. The trouble is this: he does not at once adjust himself to the standard of the new class. He finds that his new students are inferior to his old ones, and, instead of congratulating himself that his students have grown under his care, he blames the teacher below because he has not done two years' work in one. The hardest thing for teachers in upper grades to realize is that

pupils have been growing in attainments and capacity as well as in knowledge, during the preceding years. That a boy can do a thing well now is no proof whatever that he could have even approached it one year ago. Thus unjust criticism arises. I am reasonably sure that at least a fair share of the college criticism of high school work comes from this cause. Even college professors sometimes fail to realize vitally the limitations of workers below them. The more thoroughly each of us knows the conditions and limitations of the other's work, the more hearty will be our sympathy, and the more inspiring will be our contact.

SYSTEMATIC INDIVIDUAL INSTRUCTION

IN COLLEGE AND UNIVERSITY

Prof. H. de F. Smith—The rapid growth of the American college has brought many problems, but none presses more for solution than this: how shall the college teacher get at the individual student and exert a personal influence on him? The college of an earlier generation, when the course of study was rigid and students fewer, had no such question to answer. The contact of instructor and student which we of today are so desirous of obtaining was one of its characteristic features. A professor had so few students under his tuition that he was able to become well acquainted with each one, to find out how his mental and moral make-up differed from that of his fellows and to understand what influence he most needed. In many cases he found some way to bring that influence to bear. In the college of the present, the lack of personal oversight consequent on the increase in size of classes has permitted a decrease in the strenuousness of its intellectual life. Even in the small college, there has been no such increase in the number of instructors as to preserve the element of personal instruction as it once existed. The explanation of its disappearance does not lie wholly in the fact that classes are becoming larger. The growth of the elective system has also contributed in some measure. Figures in catalogues do not show that the ratio of instructors to students has changed much in the last quarter of a century. But, when we look more closely

at the facts, we find that this ratio has been kept intact by the addition of instructors in elective courses mainly, while there has been no adequate increase in the number of those who have charge of the required branches. When we read that a college has one instructor to every eight students, we do not know the whole story till we find out the ratio in the required studies. Here we shall very likely find it one to 30 and perhaps the instructor is giving two catalogue pages of courses besides. It is the freshman who takes most of these required courses, and he sorely needs the personal influence of the instructor. When he enters college, he expects to find there a more earnest intellectual life than any he has experienced. But he soon finds that the crowd in the classroom will shelter sloth and inattention and deceit. He is called to strict account during perhaps one thirtieth of the time of an instructor whose efficiency is seriously impaired by the dulness and indifference of the class. He can keep up with class work without much effort. Is he wholly to blame then if he loses his first enthusiasm and adopts the indifferent pace which he finds prevalent? Is it strange if college comes to be, as has been said, "a respectable loafing place for a throng of young fellows who are pleasantly passing away their time until serious professional training shall rouse them to responsibility" ?

To counteract this tendency, Pres. Hyde, of Bowdoin college, in his report for the academic year 1895-96 brought before the boards of the college a plan of individual instruction. His views as there set out are as follows: the weak spot in college education is the lack of personal contact and oversight. Not all the work of instruction can be done efficiently in large classes. A subject may there be presented on broad lines. The finer adaptation must be to the individual. This has been left undone or imperfectly done, because the teaching of individuals is costly and hard. "The way to strengthen the weak spot", he adds, "is to employ, as supplementary to the work now done by the professors and under their direction, tutors to do the kind of work which the professors are compelled to leave for the most part undone. It should be their duty to meet each student individually for half an hour at least as often as once each week, to review with him thoroughly and critically a specified portion of

the work done in class during that period, to discover difficulties, to remove misconceptions, to correct wrong methods of study, to point out errors and superficialities, to insist on accuracy and thoroughness, to stimulate interest, to suggest lines of reading, and by personal influence to bring the subject home to the student as a living reality."

For two years I have given such supplementary instruction to the freshmen in Latin and Greek. To show the scope of the plan, I will outline the work of a few terms. At the beginning of the year the freshman class is divided into groups varying in size from five to nine men. The composition of these groups is changed as I come to know the students better. The size of the group depends on the abilities of its members. I often change a student from one group to another if I think he will find there a more stimulating atmosphere. Students of the first-rate abilities are grouped together, and so work without the interference of the dull or slow. Sometimes I use my best scholars to set the pace for others. Occasionally I find a man who must go alone.

Each group spends with the instructor at least one half hour weekly in each subject. During the first term of the year the work of these groups is Latin and Greek prose composition based on the authors read in the class. Work of this sort requires close correlation with the daily work, and its value depends on the careful planning of the exercises by both professor and instructor with a view to mutual assistance. For example, the Greek professor sets the paper for translation into Greek, basing it on the immediate work of the class. It is then a subject of general discussion and recitation for some part of one or two class exercises. The translation is then made and handed to me. I go over the papers carefully in each group. In this way I get at the individual, discover his strong and weak points and am enabled to give him the help and stimulus that he needs. Before the end of the first term I have succeeded in getting each man into that group where conditions are most favorable to his welfare.

The group work of the second term is supplementary to the class study of Homer and Horace. It is sometimes strictly correlated and sometimes collateral. For example, one year the work was a review of the week's reading in the odes of Horace.

To each student was allotted a passage which he was required to translate carefully and to interpret as regards meter, mythologic and historical allusions, the influences that molded the form or thought, modern parallels, etc. Various metrical versions were compared with the original. Papers were also prepared and read, dealing with the life and times of the poet. Some acquaintance was thus gained with the literature of the subject, to which specific references were given.

Another term, in order to fill in a background to the literary figure of Horace, each student prepared a series of weekly papers dealing with the contemporary history of Rome, the life of the poet, his contemporaries and antecedents in literature, the government of the empire and various religious and mythologic subjects. This led to a study of Roman life, which was the work of the next term. In Greek the work was based on Homer and included a study of Homeric forms, written translations and summaries, exercises in scansion, etc. This year the time usually spent on Homer and Horace was used for a study of a collection of casts and other objects of archeologic interest in our art building. Each student was given a piece of sculpture to study, with references to select books. He was told to examine it thoroughly, read up, and present his results in a paper. In studying each work he was required to consider not only the myth involved and the history of the original, but also all the *realien* there represented. In this way each student came to know some fifteen or more good reproductions of masterpieces of ancient art. This course formed an introduction to the systematic study of mythology during the next term.

In connection with the reading of the *Odyssey*, papers were also prepared on the excavations at Tiryns, Mycenae and Troy. These courses will suffice to give an idea of the kind of work done. The value of it lies in the fact that each man has something which he must do himself. In many cases the mere thought that he is deemed capable of such work serves as an efficient spur. He knows that his results must be presented to the members of his group, that they expect to ask questions, and that he is responsible for a reasonable answer. It thus becomes a personal matter with him, and he seldom fails to do his best. If he is lazy or indifferent, he can be put into a group that will have a more stimulating effect on him.

I meet the members of the group, face to face, around a large table. We go over each man's work in detail. There is time for questions and answers, and every student is encouraged to give his views. Deception is rarely tried, for under the circumstances it is very difficult. To the instructor the work thus conducted proves not at all monotonous, for it is teaching under ideal conditions. He comes into intimate contact with his students, studies each man's aptitudes and methods of work, helps him in correcting his errors of thought and sees the growth of his interest. This method gives each student more work to do and increases his time of attendance by at least one half hour in each branch. I do not think that he feels this a hardship, for he is kept interested by the stimulating effect of an appeal to his individuality. We do not aim to relieve the professor of any of his regular work, except in so far as it is a relief to have the interest of the class aroused by the work of its members. Lectures, recitations and examinations go on as usual. We do aim to prevent the waste incident to wholesale instruction, to raise the subject to its full disciplinary value, to arouse the interest and responsibility of the student by any available expedient; and we have in a measure accomplished this. This method has been applied to the classics first in an effort to overcome the effects of widely prevalent conditions. It involves the principle of laboratory work in science, and, if the classics are to stay in the curriculum, they should have a fair show as regards men and money—which is not the case to-day. Modern languages and mathematics, in fact any subject taught to large classes, specially of freshmen, need the same method. As we have found it a success, its permanent establishment in every large course is with us only a matter of time and money. The cost however is not large. There are many young men, fresh from the university, who would be glad to get such a position for a year or two for very little more than enough to cover their expenses. They would find it an excellent apprenticeship for the work of teaching, "an invaluable training in appreciation of the difficulties, interests and point of view of the student". The personal benefit and encouragement that come to the student from such attention to his individual needs more than repay the college for such expenditure.

If supplementary instruction of this sort be not available, the individual may be reached by a system of required reports. That means an added burden to the regular instructor, but the good effect warrants it. As examples of such a system, two cases will suffice. A course in American history that I have noticed requires from each student six or eight reports a year, which embody the results of his independent investigation of a subject connected with biography, geography, statistics, constitutions, state history, documents, etc. Similar is a course in ethics in a New England college in which, after a study of ethic theory, the field of practical ethics is divided among the members of the class. Each student presents his section in writing for the private criticism of the instructor. The rewritten paper is then read before the class and is the subject of free debate. In this way each student has his individual part in the systematic presentation of the subject. In such ways the instructor who recognizes his responsibilities toward the individual student can combine general and individual teaching in an effective way. Every teacher who is alive to his duties and not afraid of work must do it. In cases of overworked professors such work may well be substituted for one of the regularly assigned weekly hours of recitation. The result must surely be an increase in the value of his course.

Still another means by which personal contact with students may be brought about is the student club. Such a club leads to social relations between instructor and student. The friendly and informal discussions which there arise often have great influence on the student. There is opportunity for the consideration of interesting matters that can not be brought up in the regular work. There is gain in sympathy between teacher and taught. It makes the boy a better student, and raises the efficiency of the teacher.

Such expedients the college must employ if its efficiency is to keep pace with the increase in the number of students. Teaching in large masses will not accomplish the work that the college has to do.

IN ELEMENTARY AND SECONDARY SCHOOL

Sup't John Kennedy—Two years ago it occurred to us that something might be done to lift from our schools the reproach of not providing for the needs of individuals. We resented much of the

criticism on our schools, but felt that this particular reproach was just. We began with a large room that had in it too many children to be handled successfully by one teacher. There was a time when we would have taken out the overplus of children, and started another room. Had we done so in this case, it would have been just an infinitesimal extension of the graded school system. Our maturer experience, however, suggested that we leave all those children together and bring into the room a second teacher who should quietly give attention to the more backward ones, calling them and dealing with them as individuals. This did not prove an extension of the graded school system, nor even a slight modification of it; it proved a revolution. It was not long before we discovered that we had put in among our children a ministering angel; and we made the surprising second discovery that we were converting the other teacher into a ministering angel also. It is not easy for a teacher to be angelic when she knows that half or two thirds of her children are dropping to the rear, and are held up anywhere near the line by only the deadest kind of a pull. Nor does it conduce to the growth of seraphic sweetness to have to stay an extra hour or two after school to operate on laggards. I think that I have seen signs of impatience on the part of the staying teacher; and I am sure that the detained laggard viewed himself in no other light than that of a culprit undergoing a pretty bitter chastisement.

We have heard of "Patience, gazing on kings' graves, and smiling extremity out of act". The greatest patience that I have ever seen is that of a pupil who submits to the fiercest persecution before the entire school because he does not understand what he does not understand, and who stays after school for an hour or two of extra roasting by a teacher who has reached the verge of hysterics. If it is a boy, he usually takes his medicine silently, with something of a hangdog look, till his patience is exhausted; and, when his patience is exhausted, his character is out of joint, possibly overthrown. If he is a lad of gentle fiber, he is likely to tell in his sleep to his parents and the pitying angels what a weary and grievous world he has fallen on. Or he may hold it back till the fatal fever tears off the mask from his secret troubles. If it is a girl, she is sure to unload at once the burden of her sorrows on her mother and father, unsettling the

whole household by sympathy, and to make the poor father and mother try to teach school at home, after hiring a teacher to do it. Soon there is impairment of discipline, and serious misunderstanding in regard to the management of refractory pupils. The teacher thinks perhaps that she is a model of patience because she does not actually brain the pupil; and the parent can not appreciate at all the undisguised note of bitterness that accompanies any account or discussion of the boy's conduct. When the whole thing works itself out to all its consequences, the situation is not by any means paradisiac, nor are the individuals that figure in it cherubic. The understanding is not improved in the slightest degree when the teacher, scholar and parent bring up in the same sanitarium. I wonder if the thing is cleared up and they do have an understanding after the earth is smoothed over their premature graves.

There is impatience in another quarter. The more apt pupils demand release from the drags and an opportunity to go forward. Their request is granted, and all gradation is broken into smithereens. Schools pride themselves on devices for shaking up the forward ones and shaking down the backward ones; and the shaking down becomes, more or less unconsciously, a shaking off. We take a hundred fresh, wholesome, charming, pretty children; and by the time we have reached the senior year of the high school we have shaken off about 95 of them. It would be a little too realistic to observe where they fall when we have shaken them off. We euphemize the matter by saying that they have disappeared, vanished, gone out to make a living perchance, if perchance they are still alive, or some such explanation. But in plain Anglo-Saxon they have been shaken off. Is there not a suggestion of a Juggernaut in all this? Of a machine running amuck? I will confess that the images suggested are not those of an educational Elysium.

We did make a paradise of that room. There are no hysterical teachers in that room; no heartbroken children in that room; no disorderly children in that room; no misunderstandings having their origin in that room; that room is furnishing no subjects for sanitariums or graveyards; there are no backward pupils in that room; no pupils in that room clamoring for permission to go ahead, for the simple reason that they are going ahead about as

rapidly as they care to go. That room is a paradise; the teachers are angelic; and there is not a cloud on the brow of a single child. All are busy bees, but no one is under the harrow. There is not a child in that room who carries home any complaint; not a child in that room who carries home any wretched school work to persecute father or mother; not a child in that room who dreads to come to school; not a child in that room who does not come winging and singing to school like a little, joyous bird; there is not a child in that room who would wish to be absent for a single day. But the category of blessings is not even yet exhausted; in fact, it is only fairly begun.

After such an experience it will not be surprising that we should organize other rooms in the same way. We have now four such rooms with four such bounding and happy sets of children. But we have still several times four rooms in which we have but one teacher; and we queried whether we might not have individual instruction even there. We tried the experiment of taking half the one teacher's time for individual instruction; and we were delightedly astonished to find that the results were much the same as in the two teacher rooms. Under individual instruction given by the one teacher all the observed evils began quickly to subside; and all the observable blessings began quickly to spring up. Health, happiness, courage, diligence, scholarship, friendship, order, character, only head a list of results that might be extended into the thousands. I have said that individual instruction converts our rooms into hives of busy bees, and I speak truly; it performs the marvel or miracle of dissipating all listlessness or laziness.

I have said that our apter pupils do not need special promotions, and I speak truly; they have all they care to do, or can do to keep up with the dull and backward ones. For, strange to say, miraculous to say, under individual instruction the hopelessly dull pupils become noted for their intellectuality and studiousness, and become the leaders of the room. Whenever hereafter I shall hear of special promotions, I shall conclude that there is something wrong with the school. Whenever hereafter I shall hear of any sifting of the pupils of a grade, I shall conclude that there is something wrong with the school. Whenever hereafter I find one seventh grade room sufficing to accommodate all that

have survived from half a dozen first grade rooms, I shall conclude that there is something seriously wrong with the school. And, whenever hereafter I shall hear of multitudes of children making a failure of their school work, I shall conclude not only that there is something wrong with that school, but that the school is altogether wrong. We think we have learned the great truth that children do not make a failure of their school work; it is the school that makes a failure with them. The so-called failures simply needed a little personal attention, and did not get it. They are merely victims of a mighty wrong; on the one hand, they have been cheated out of their growth, on the other they have been perverted and deformed by violence. I used to be very severe on the naughty boys who take to street corners, and make nuisances of themselves in public places. My severity has changed to pity. The poor fellows needed a little more attention in school, and did not get it; so they went out where things seemed more interesting. But the place where things seemed more interesting is pretty close to intemperance and vice, pretty close to ruin. It needs no deep penetration to observe that the children who are interested in their school work have thrown around them a strong shield of protection against evil influences. Sophistication goes on *pari passu* with the school failure; and recent observations compel me to charge the school failure to the school. The poor young people needed more attention and did not get it. In other words, I fully believe that the battle for morality has been mightily reinforced by the introduction of systematic individual instruction.

Class instruction is all right, when supplemented with individual instruction. Class instruction is more than all right when thus supplemented, it is a necessary instrumentality in the best education. It is class instruction unrelieved by individual instruction that kills. The recipe for the most wholesome educational stimulus seems to be class instruction and individual instruction in exactly equal proportions. I believe that the field of individual instruction will extend to the second year in college.

I am far from wishing to maintain that schools are a mistake and that education should be carried on in isolation by tutors, away from all dangers of crowding or overstrain. I would have individual instruction, but I would have it in the school; by

means of individual instruction I would make crowding, overstrain or neglect in school impossible. There is advantage in numbers; the volition of youth needs its stimuli; it needs the spur of emulation and the inspiration of esprit de corps. The case is not the school against the tutor. As between the school and the tutor there is but a choice between two evils, with the odds rather in favor of the tutor. There is this one mighty consideration in favor of the tutor, that, if he can not cure, he will not kill. The tutored subject may be weak, effeminate and one-sided. But he will, at least, be alive; and will have good nerves, and will be unsoured of existence. His heart will be free from bitterness and unseared with the hot iron of wrong. He may be gloriously gullible; but he will have a great circulation, and he will be a great eater and a great sleeper. He may be very diverting to his acquaintance, but he will never be positively disagreeable. He may perchance get his eye teeth cut, may possibly slough off his eccentricities, and possibly out of his well conserved vitality he may become a great man. If he could have the good fortune to be exposed for a few hours to the Apaches, he would be a great man sure. The only trouble with him is that he is a big man latent. Under ordinary circumstances he will run to his ma; but let the circumstances be extraordinary and you have the hero. Heroism is born of sound sleep and good digestion; if this Titan ever wakes up, he will wake to stay.

No; the great question of education is not the school against the tutor. It is the school and the tutor; it is the tutor in the school. The school loses every one of its terrors and becomes utterly impotent for evil the moment the tutor enters the door. The potency of the tutor is increased a hundred-fold the moment he begins to operate on pupils who belong to classes. He now not only saves them but educates them. They are now not only latent heroes and great men, but actually so. I shall not be surprised if at an early day an untutored school will be looked on as a remorseless Juggernaut, grinding down children, parents and teachers, and filling the world with misery, despair and sorrow.

A school is a good thing provided that it has its corrective. Otherwise it is one of the worst things that could be turned loose

among the human race. Law is a good thing; but law needs its corrective to prevent it from working oppression and injustice. Blackstone defines equity as "a special means of relief wherein the law by reason of its universality is deficient". Individual instruction is the equity of class instruction, it is that special means of relief to tortured and imperiled thousands wherein class instruction by reason of its universality is deficient. The doctors will compound an elixir of life from ingredients which would each be a deadly poison if taken singly. We in like manner must make our educational cordial from two very bad ingredients, each of which has deadly or deadening qualities used alone. We must know the pathology of our profession, its *materia medica*, and its pharmacy before we can practice it successfully.

Pres. William J. Milne—You have already listened to two valuable and interesting papers on this same theme, and, in view of the lateness of the hour, I beg to be excused from amplifying the subject assigned to me. I will reserve it for some future occasion. There are yet four or five speakers to take part, and I think you can easily get along without what I have to say, since the gentlemen have presented the subject so ably.

WHAT SECONDARY SUBJECTS ARE MOST VALUABLE FOR A BUSINESS LIFE?

Prin. Thomas O. Baker—I sent out something like one hundred letters to prominent business men and professional men asking the question, "What subjects do you think most valuable for business?" and I shall give you just a few quotations from nearly one hundred replies. Charles T. Thwing, of Western Reserve university, says:

The primary element of an intellectual nature is the power to think. . . . The subjects that are most valuable for the development of this power differ according to the kind of power that is desired. If the power of discrimination is desired, I think that the languages, either ancient or modern, are most valuable; if the power of conservation and of inference, the sciences have special worth; if the power of literary interpretation, English should be followed; if the power of abstract and general think-

ing, philosophy and mathematics should be cultivated; if what may be called comprehensiveness in thought is desired, history should be embraced. Any subject is good to create power as a thinker if it be properly followed and if taught by a vigorous personality. The teaching is more important than the subject, and the chief element in the teaching is the personality of the teacher.

Prof. A. C. McLaughlin, of Ann Arbor, says:

He should be able to see things in their broad relations; he should have the outlook which comes from historical study. He should have the principles and laws of economics and know the nature of economic and industrial problems. He should study the physical sciences to be able to understand, if not personally to apply, the principles on which mechanical development in the future is to rest. He should by the study of history and modern languages have risen above the provincial patriotism which prevents our business men from winning the proper place for our products in world commerce. But every business man is not only a business man but a citizen as well; he therefore should study history, government and politics. He is a man as well as a business man, and should study literature as a source of culture, the embodiment of ideas and ideals.

D. Z. X. Snyder, of Greeley (Col.) writes:

Education is preparing an individual to enter fully, readily and righteously into his environment.

Prof. R. N. Roark, of Lexington (Ky.) writes:

The spirit and needs of the time regarding business education demand two or more of the modern languages, one of which should be Spanish, and thorough courses in commercial law—specially tariff laws—and commercial geography; also drill in business forms and commercial arithmetic.

Ex-Pres. Cleveland declares:

I am decidedly of the opinion that every particle of decent information, whether emanating from scholastic education or otherwise acquired, is important and valuable, either to a business life or a professional career.

Pres. William DeW. Hyde, of Bowdoin college, affirms:

I do not believe that it is possible to divide subjects for study on the basis of preparation for business or professional life. Life, in all departments, is one, and the individuality of the student is quite as large a factor as the particular line of work he intends to follow.

A. Gilbert, president of the Market and Fulton national bank of New York city, observes:

I should say that a common school education is sufficient to lay the foundation for almost any business career. To be well up in mathematics, a good penman, with a knowledge of book-keeping, will give a boy a good start in business life. His development and future success will depend largely on his industry, application and attention to business.

Pres. Hadley, of Yale, remarks:.

It seems to me that the subjects which are most useful in preparing a man for the specific duties of business or professional life are not, as a rule, the most valuable for his general character development.

Sup't Boone, of Cincinnati (O.) replies:

1) A clear knowledge of the conditions of trade—supply and demand, that might fairly be included in the term, descriptive economics. 2) Familiar acquaintance with commercial conditions, and lines of promising development—a geography of trade, in other words. 3) A technical knowledge which applies to book-keeping, and the incidental finances of such business.

Sup't Greenwood, of Kansas City, answers:

A thorough course is the only good course for business, or any other pursuit in which people engage.

William Allen Butler, of Yonkers, gives this opinion:

For an active business career the general current of events, coupled with a knowledge of commercial possibilities and the development of industries and enterprises, would be most likely to engage the attention of an active mind. No hard and fast rule can be applied. Opportunity is far more often the key to success than any special course of preparation, and the faculty to use it more valuable than previous application to any particular study. A conscientious use of all general means of improvement and knowledge seems to me the best and most practical method of preparation for usefulness when occasion arises.

Chanc. MacCracken, of New York university, says:

I would not compel a student utterly without taste for the classics to follow them in his high school course. On the other hand, I deem the classics eminently helpful both as discipline and as knowledge, not only to the professional man but to the future merchants, bankers and leaders of business.

An ex-mayor of New York city, who does not care to have his named used, gives this advice:

Tell the truth.

Be industrious.

Avoid evil companionship.

Marry a good girl as soon as you are able to take care of her.

Then with integrity in a young man's character, he will succeed in any kind of business.

Prof..A. V. Williams Jackson, of Columbia, recommends:

English language and literature, including rhetoric and composition. Some Latin, French, German, history, logic, political economy, some knowledge (if possible) of philosophy, a good knowledge of mathematics and a general knowledge of the natural and applied sciences.

A New York bank president replies:

Courtesy and manners; and, despite the reflections on Chesterfield's letters as being pure policy, I regard them as furnishing a young man with one of the best qualifications for a business life.

From the foregoing I would suggest the following as the subjects of most value to a business course. Four years of English; two years of mathematics; two years of science; two years of history; at least two years of French, German or Spanish; one half year of each of the following: commercial geography, commercial law, history of commerce, civics, economics, commercial arithmetic and bookkeeping; thorough drill on business forms and business correspondence; a thorough course in bookkeeping, and for those who must start as accountants or clerks, typewriting and stenography—the whole to cover four years in the secondary school.

Chanc. Upson—It is true, I think, to a very large extent that the schools do not teach our young men how to spell. They do not teach our young men the simplest problems of arithmetic, so that many a young man is introduced into a business life, utterly deficient in the things that it is expected he will be proficient in. This I hear from all quarters. I hope you hear it, and I hope you will be governed by what this gentleman has said with reference to the course of study which he would have in his elementary and primary school.

Sup't S. R. Brown—It is often charged by business men that the schools do not prepare the young for business life. But from the symposium to which we have just listened, I have learned that there is no more agreement among business men, and men of the professions as to what kind of preparation is needed than there is ability among teachers to give that prep-

aration. I am left entirely at sea after listening to that paper. However, I would like to accentuate this one thing, viz, if there be any deficiency in preparation for business on the part of young people, it is because the schools today are passing through an era of information and not of drill. Business life peculiarly requires that the individual be drilled so that what he does know he knows instinctively, precisely, and he knows not, as Josh Billings has said, "a great many things that ain't so", but what he knows he knows is so. There is no time in business life for research. The lawyer's client comes to him, and the lawyer says yes and yes to his statements but then takes a day or two to find out the law on the question. The business man knows that tomorrow points will go up or points will go down and that today is the time and the only time. Therefore a system of education which contains information only, is not what the young man wants to prepare him for business life. I know something of what I am speaking because of a personal experience for a number of years in commercial work. I know something about it from having had a commercial department among my schools for the last 12 years. What the students need is drill and they need that most emphatically for a business career. Now there is something ethical which should be considered here. I believe in the work of Hamilton college in oratory, to which Chanc. Upson has referred, but I believe that no man ever speaks well unless he desires to speak well first and foremost, and no boy will succeed in a business life unless he desires to succeed. The school must teach him that desire, his parents must teach him that desire, or something must come into his life to make him want to be a successful business man first of all.

We are placing too much responsibility on the shoulders of the teachers. They can not care for the children 24 hours in the day and seven days in the week. There is something for the child and something for the parent to do. So if the student has a desire to succeed, it makes but little difference what his preparation is as regards books or information. I have turned out many students perfectly competent as to book knowledge, to fill almost any position in the business world, yet from a weakness of purpose they have had but a small success. "It is more in the man

than it is in the land", the old adage goes. First, then, there must be the desire. Second, there must be what our forefathers had taught to them in the schools of their day, a spirit of self-denial. At present the trouble in the labor world is that men want more but wish to offer less for the same. When the time was that a young man had nothing to work with and everything to do, he did something. Today, when the youth have everything to work with and nothing to do, they are standing idle on the street corners. I tell you self-denial is necessary on the part of the successful business man. He must be taught it in the schools. It should be the spirit that accompanies every action. It is not less hours of labor we need, but more concentrated effort to bring the reward to be sought in commercial pursuits. A young man needs also an interest in nature and public affairs. He is misled who thinks that a knowledge of technical subjects alone will insure him success in business. He is a victim of that class of schools that graduate on three or six months study of two or three elementary subjects. The man or boy at the age of 25, competent to enter the commercial world and move its wheels of action, needs a technical, practical and professional training that he can only acquire by long and deep study.

In conclusion, I would say that the trouble with young men in the business world is, that they are willing to take a position without being willing to make farther efforts in the line of perfecting themselves in that position. In reply to the question asked of the Jew who was seen in his shop working overtime, "Why don't you stop at 6 o'clock?" the answer was made, "I don't have to now, because I own the shop." You must get the young man imbued with the idea that he must own the shop, that he must be the master. Such a man is the one most needed in the business world as well as in the professional world, and he is the one who is to remove the complaint on the part of business men that young men are not doing their duty and are not living up to their opportunities in these modern times.

Prin. O. H. Burritt (not read)—With a view to answering this question during the present school year, I sent out to the business men in our village and vicinity a series of questions calculated to call forth a candid expression of opinion. I claim no originality for the questions, but am indebted for them to Prin. Myron T.

Scudder, that fruitful presiding genius of the New Paltz normal school. With these questions was sent a circular letter asking for the fullest and freest expression of opinion and also a copy of the commercial course registered by the regents, with the following question and request:

What do you think of this course of study as planned?

Please strike out any subjects which you think may just as well be omitted.

Insert any which you would insert, and add any suggestions which you think will help us. Please criticize fully.

The first question was: "Should the commercial course aim to train for clerkship or bookkeeping, or should the aim be to prepare the student for the possibility of positions of still greater responsibility?" Of 46 answering this question 18 are in favor of training for clerkship or bookkeeping only, while 28 think that the course should aim to prepare the student for positions of still greater responsibility. I give two or three specific answers. The first replying, a general insurance agent, says: "What we need right here in Malone is a larger number of business boys; by this term I mean boys who can understand, and be of some assistance to their employers. We have plenty of bright young men, but not enough who can do actual business in a business way. If they can be prepared in any degree for a business life among business men, it will be of inestimable value to themselves and those with whom they will be placed to do business."

A prominent lawyer gives a setback to the enthusiastic devotee of the subject of bookkeeping, when he declares: "The matter of bookkeeping is not positively essential for business training."

One gentleman, signing himself an "ex-bookkeeper," says: "A commercial course should include double entry bookkeeping."

The question, "In what respect have you found the young people who come to you for employment deficient?" has brought out some unique answers, and given us some helpful information. Out of 41 answering this question 6 mention specifically arithmetic; 12 spelling; 9 penmanship; 18 grammar and English subjects.

A physician replies: "Not accurate. Try to learn too many things, instead of learning well a few practical things."

A general passenger agent, who has three children in our school, says: "The main requirements are a thorough knowledge of

spelling, the ability to put words together to express meaning in a concise, clear manner, and to write a plain and rapid hand that can be easily read. Also a reasonably fair knowledge of arithmetic."

A banker says: "In the first principle of arithmetic, addition; and in the law of debit and credit."

A half dozen successful merchants say: "Lack of self-confidence"; "Application"; "Energy"; "Not thorough. Satisfied; any old way if salary continues"; "Inability to sell goods"; "Lack of ambition ever to become merchants".

A merchant, himself a graduate of a business school, startles us with the information that the chief deficiency is, "Inexperience", while a furniture dealer, extracted from old Vermont stock, gives us our climax when he says, "Brains, and in many cases a desire to shirk honest labor". Surely here is a chance for a practical application by Prof. O'Shea of his theory of the importance of the study of food values. Perhaps thereby some of this deficiency might be made good. What a flood of light comes in on this subject in the answer of another merchant! "Ethical or moral side of business life". A joint editor of one of our leading papers, himself a graduate of our school 12 years ago, says, "Spelling, English grammar and composition, including division of words." A young lawyer summarizes well, I think, the deficiencies that come under his observation in saying, "Chiefly deficient in accuracy of observation, vocabulary, knowledge of rhetoric and subjects included in that science, specially punctuation, abbreviation, quotation, etc. Also there is want of ability clearly to express thought; should not simply be able to write a letter so that it can be understood, but should be able to write so that it can not be misunderstood. Inability to do this is the foundation of almost all work that a lawyer has to do."

The third question was: "It is taken for granted that the following subjects are essentials, bookkeeping, commercial arithmetic, actual business forms, commercial geography, commercial law, history of commerce, office work; but should typewriting and stenography be taught to every pupil, or should these subjects be elective?" 12 would make typewriting and stenography required subjects for every pupil in the commercial course, while 36 are in favor of making them elective.

48 answered our fourth question: "It is taken for granted that the ability to read, write and spell well, to use good English, to compose a good letter, and to express one's thoughts concisely and clearly are prerequisites in any course of study; but should a commercial course aim in addition to this to give practice in debating and in the art of public speaking?" 16 say, "No", 8 would make them elective, and 24 would require this work of all students. Some of the reasons given for such requirement follow. One merchant says: "Instils confidence and teaches how to think"; while a prominent firm says: "It will assist an individual to put his ideas into words that will convey his meaning concisely and clearly". A banker says: "Yes, in order to give the student confidence in the decision of commercial questions". One of the pastors of the village says: "Any time that might be given would conduce to ease and freedom in the style of the pupil's writing". One of our most successful merchants gives a rather unique view when he says, "This training would benefit one in advertisement-writing and salesmanship".

"Is the knowledge of Latin of sufficient advantage to a business man to warrant its introduction into a commercial course?" was the fifth question, to which 41 said, "No"; while 5 favored such study. One of our justices of the peace settles the question by saying, "Latin is certainly out of place." One editor says, "Helpful, but not necessary"; while another says, "Yes, after they learn their English, if they take a four year course". One graduate of a business school says, "Time thrown away"; while another, equally successful, says, "Yes", opinions scarcely possible of reconciliation with each other. A physician's reply, "It would be well to have some Latin vocabulary", and the reply of a young banker, "I would consider it so. It is a great help in understanding our own language; it helps train the mind", partake somewhat of the pedagogue's view.

In answering the sixth question, "How is it with French; German?" 12 favor the introduction of French, I judge, as a required subject, 9 would make it elective, and 22 answer, "No"; while for German 7 say, "Yes", 9 would make it an elective, and 26 answer, "No." The slight majority in favor of French is easily explained by our location so near the Canadian border. I quote a few of the reasons for and against. An ex-bookkeeper, already

quoted, says: "German and French should be well understood. Business houses with a foreign trade demand a knowledge of these for correspondence and invoicing"; while another says: "French should be taught, but as taught in most academies is a farce". A hardware merchant says, "Both very good, but should be taught long enough to give an education in it", and an editor, already quoted, says: "Not necessary, unless for a general education. English should be thorough before any pupils are permitted to touch them, nor should they be urged to take them at all except in special cases."

In answer to question 7, "What language, other than English, would you have taught in a commercial course?" 3 suggest Spanish as an elective; 1 German; 7 French; 5 French and German; 2 Latin and 21, none. One man says: "English is more than they can master, better not spend time on the others". Another, a lawyer, says: "I should not recommend the teaching of any other language than English in a commercial course. Time would be too short to master English, which should be taught first, last and all the time."

The answers to question 8, "Should algebra and geometry be taught in the commercial course?" show as wide a diversity of opinion as almost any other question. 28 say for algebra, "Yes", 16 "No", and one would make it optional. Regarding geometry 20 say "Yes", 23 "No" and 1 "Optional". Our justice of the peace again says: "By all means". One of our editors, already several times quoted, says: "Time wasted, except to specialists". A banker, whose opinion in such matters would carry considerable weight, says: "If a two or three year course is intended, Yes, for algebra; if a short course, No. Geometry should not be." An electrician says, quite naturally: "Algebra and geometry are quite necessary for a commercial course". A young banker: "If the student takes to mathematics, higher mathematics may take the place of Latin for training."

"What is your opinion as to the study of chemistry, of physics, of botany, of zoology—all these in connection with laboratory work?" In answering this question 19 say "No" for chemistry, 15 "Yes", while 4 would make it optional. For physics 16 say "Yes", 19 "No", and 1 "Optional." Botany, 9 "Yes", 21 "No", and 1 "Optional." Zoology, 7 "Yes", 20 "No", and 2 "Optional."

A tanner says: "If any young man ever intends to become a manufacturer, a knowledge of chemistry and physics will be of great value as a rule". A manufacturer of clothing says: "Chemistry, at least". A banker says: "Advise chemistry and physics, elementary and advanced. The subject of physics should be familiar to every business man. It will be of practical use every day." A lawyer says: "Chemistry and physics, followed up with laboratory work, should enter into the commercial course. Also elementary land surveying, architecture and drafting. Botany and zoology I do not regard as of so much importance as mechanical drafting or drawing, for such a course." I think we can hardly understand the point of view of the man who says, "Let all these be taken in the higher grades".

While many failed to answer some of the preceding questions, almost everyone gave some answer to question 10, which was in reference to historical subjects. In answer to the question, "Should civics be taught as a separate study, or be taught in connection with history?" 12 would have it taught as a separate study, while 22 would have it taught in connection with United States history. "Should history be taught in each year of the course?" was answered in the affirmative by 22, 1 of the number expressing some doubt, while 6 answered in the negative, and one replied, "Nonessential". One question read, "What is your opinion of the following course? .

a History of Greece and Rome and other ancient civilizations

b History of England and other European nations

c History of the United States"

10 regard *a* as essential, 6 as good, 5 would make it elective, and 5 say, "No". 14 consider *b* essential, 4 good, 2 would make them electives, and one says, "No". 26 consider the subject of United States history as essential, only one saying, "Non-essential." Two or three replies show remarkable grasp of the proper arrangement of these subjects. One says: "Reverse the order in which they are named, and give them preference accordingly". Another, a physician: "I think there should be a thorough knowledge of United States history, and of others a good understanding". 2 others say: "United States history first, then England, first two not essential". 2 say: "First and fourth years United States history, second year, Greece and Rome,

third, England and other nations," certainly from many points of view a most excellent arrangement.

To the 11th question, "Should an elementary course in political economy be given?" 31 say "Yes", 8 say "No." 1, in answering this question, says: "Keep all politics out of the public schools".

Question 12: "Should this course, like the other courses, extend through four years, or should it be confined to three years?" 10 say four, 26 say three, 1 says two years, while 2 say it is altogether too long, that six months is sufficient for a business course.

The criticisms passed on the course as laid out by the regents are interesting and instructive, but these must be reserved to some subsequent time.

We may summarize the replies received by saying that the "secondary subjects most valuable for a business life" are as follows: required subjects—bookkeeping, commercial arithmetic, commercial geography, commercial law, actual business form, history of commerce, office work, 1st year English, business English, United States history, civics, economics, physiology (because required by state law) and algebra, while typewriting and stenography should be optional studies. For the remaining time I should recommend advising pupils to study one foreign language, history of England and other European nations, physics and chemistry, and I should, by all means, encourage the study of geometry. If this amount of work be taken, four years will probably be necessary for the course, though I believe, in many instances, in adapting ourselves to the demand to arrange courses of three or even two years duration.

FOR A PROFESSIONAL LIFE?

Dr J. H. Beal (not read)—As a means of brevity I enumerate below some of the conclusions which in the ensuing pages are assumed without argument or demonstration.

1 The aim of the secondary or high school training is not to give men their professional or commercial equipment, but to fit them for the subsequent acquisition of this equipment either in the technical school or in the walks of trade.

2 By the wording of the interrogative title assigned to the writer, specially when taken in connection with the next preced-

ing title, it is evident that we are expected to recognize the existence of an intrinsic difference in the character of the secondary training necessary to the development of the professional man, and that which is best adapted to the training of the man of business.

3 The title also reminds us of the existence of a tendency to carry the specialization of the student much farther back in his educational career than was formerly thought necessary or even desirable.

4 The utilitarian philosophy of this age and country requires us also to assume that a "successful" professional career is intended, even though the adjective is not expressed in the title.

The old high school curriculum was constructed on the theory that the education of students of all classes should be identical up to the actual point of beginning the technical, professional or business training.

The philosophical basis of this system is the idea that there is a common fund of information and a common course of intellectual training as essential to all true culture as the possession of a common tongue, and that all special education should be deferred till the acquirement of this so-called general education has fitted the student for the responsibilities and duties which pertain to the rights of citizenship. Doubtless the general validity of this theory is still universally recognized, the only difference of opinion being as to the point where the dividing line should pass between the general and the special education. Of late years there has been a growing disposition to trench on the general in favor of the technical training, and to begin the differentiation into business and professional students at the outset, instead of at the conclusion, of the high school course; to direct the study of the prospective medical student along different lines from that of the one who is to become an attorney at law, and to train both of these somewhat differently from the students who prospectively will engage in commercial or manufacturing pursuits.

Admitting the full force of the argument in favor of an early specialization of studies, we are nevertheless compelled to dissent from the wisdom of such specialization in so far as it tends to displace from the high school course the fundamentals of the general education, or operates to diminish its effectiveness as a

means of general culture. Conceding the full importance of thorough technical training for technical pursuits, there nevertheless remains with the educator the obligation to prepare the student by a liberal and comprehensive course of instruction for his responsibilities as a member of society. Narrowness in education is quite as great a fault as superficiality, and a high degree of technical excellence in the individual can never compensate the state for the lack of the qualities essential to well-rounded and useful citizenship.

As the old civilization erred by sinking the welfare of the individual in the welfare of the state, so may we, in turn, make a mistake by subordinating the collective interests of society to the private interests of the individual. Whatever, then, may be said herein in favor of a proper selection of secondary studies as a preparation for a professional life is with the premise that we do not thereby favor any modification of the high school curriculum which would in any degree lessen its effectiveness as the developer of a symmetric general education.

Having assumed that our title contemplates only a successful professional career, it becomes necessary before we can proceed to a systematic development of the subject to determine what is to be understood by such a career. To many the ideal of professional success is that which brings a maximum of wealth and renown, regardless of the manner of its achievement, or of the moral or intellectual worth of its results to mankind.

While it is certainly permissible to include the acquisition of money and reputation in the list of ambitions which men may honorably entertain, we certainly are not entitled to exclude the higher qualities of fidelity to truth, honesty of purpose and sense of obligation to society, or, rather, every legitimate scheme of education demands that we shall include these and all other qualifications which go to make up the higher moral and intellectual life.

As a provisional definition of professional success, we may say that the individual may properly be considered successful in a professional way whose technical knowledge is such as to command the respect and confidence of his coworkers in the same line, and whose abilities in practice are sufficient to secure for him the full and profitable employment of his time and talents in its exercise.

By the limitation that his technical knowledge should be such as to command the respect of his fellow workers, we mean that his knowledge must be real, and not merely a reputation for knowledge such as is gained by the quack through meretricious advertising and self-exploitation, and which passes for profundity only with the vulgar. His knowledge must also be of a usable kind, i. e. his information must be of a sort that is pertinent to the subject-matter of his profession. It must be abundant, and it must be precise.

His general culture must be sufficient to give him an intelligent view of life, and such as will enable him to bring himself into harmony with his environment, and finally, his discipline of mind and training of faculty must be such as will enable him to make the readiest and most effective use of his information in meeting the daily exigencies of professional life.

Assuming for the present that we have correctly characterized the elements of a successful professional life, we are ready to attempt, by reasoning back from this starting point, to arrive at some general conclusions respecting the relative values of the respective high school subjects in the generation and development of these qualities.

The subjects of an average high school curriculum may be classified as follows:

- 1 Mathematical subjects, embracing advanced arithmetic, plane and solid geometry and trigonometry
- 2 Language studies, including, besides English, also Latin, Greek, German and French
- 3 Literature, including also all historical subjects
- 4 Natural science subjects, including physics, chemistry, botany, zoology, physiology and physical geography
- 5 The fine arts, as music, drawing, etc.
- 6 Miscellaneous subjects, as bookkeeping, stenography, economics, etc.

Assuming the possession of the requisite natural ability, and the necessary technical information concerning the subject-matter of his vocation, the mental qualification which mainly determines the standing and success of the professional man is his ability to reason closely and analytically, and to form rapid and independent judgments, both of which are usually spoken of together as the power of accurate and independent thinking.

First among all high school subjects best calculated to develop these mental qualities I unhesitatingly place the mathematical subjects. I am fully aware of the danger of incurring the charge of fogysm by the advocacy of such old-fashioned studies as arithmetic, algebra and geometry as the most valuable subjects in the preparation for a professional career, but this conclusion is the result of both experience and observation, and is not given without reflection.

The disciplinary value of the mathematical studies is beyond all question, and fully justifies the esteem in which they have been held by the cultured peoples of every age. To the influence of its mathematical content must be attributed much of the vigor and power of analysis of the Greek philosophy, and to the want of it the effeminate and puerile reasoning, or rather, lack of reasoning, which dominated the philosophical systems of the Asiatics. The Grecian philosophy was virile, masterful and fruitful of results: the Asiatic was dreamy, insipid, and in a practical way resultless. The one was a trainer of men, a founder of nations, and a builder of civilizations: the other a generator of castes, priesthoods and social shamelessness.

In the writer's estimation no other subjects which may properly be made a part of the high school curriculum are comparable to the mathematical studies in the development of the mental capabilities of the pupil. There is no better foundation to build any education on, and for a professional education none other as good.

It is admitted that the results as observed in many high school graduates may not seem to warrant the high rank I have assigned to mathematics, but this is explained, partly by the crowded condition of the high school course, which prevents the pupil from rendering full justice to all studies, and partly by the natural difficulties of the mathematical subjects and the intense mental concentration necessary for their mastery, which engenders a constant temptation to slight them in favor of the more attractive and less difficult studies.

The same considerations which make mathematics a drag with the pupil render it a burden to the teacher, so that the recitations too often come to be looked on as a perfunctory and disagreeable duty to be gotten over as quickly as possible.

To reason well, however important, is not the only essential to professional success, nor is the highest development of the reasoning faculty possible without the coincident cultivation of other qualities. There must also be the ability to note slight differences in phenomena which superficially appear the same, and an acute appreciation of the significance of little things, if the reasoning faculty is to reach its conclusions speedily and accurately. Furthermore, conclusions must not only be accurately formed but must be clearly and forcibly expressed. For the law this is imperative, and for other professions almost indispensable.

For the development and training of these qualities and mental habits the most efficient agencies are the languages, specially English, Latin and Greek. There should be a thorough study of English, both as to structure and rhetoric, with abundant practice in composition, and at least a sufficient amount of time should be spent on Latin and Greek to enable the pupil to read Virgil and Homer.

The popular prejudice against the dead languages, which grew out of the excessive amount of work in the classics required by the ancient college curriculum, is without foundation as against the inclusion of a reasonable amount of such work in the high school. As long as high school graduation continues to be the generally accepted standard for admission to professional schools, and as long as the classical languages remain the basis of the terminology of all learned pursuits, the inclusion in the high school course of two or more years of Latin and Greek is to be deemed indispensable.

Following Latin and Greek in importance come the modern languages, German and French. The reason for ranking these below Latin and Greek is that their disciplinary value is certainly below that of the two latter subjects, while as a means of acquiring scientific information they are year by year losing importance, owing to the fact that the rapid strides made in original investigation and research by English-speaking peoples promise in time to give our own tongue the same preeminence in science that it now holds in manufactures and commerce. Even at the present time the ability to follow the scientific work of Germans and Frenchmen in their original tongue must be looked on as an embellishment to a professional education rather than as a neces-

sary adjunct to the highest professional success. To the original scientific investigator and to those who expect to practise in particular communities a knowledge of foreign languages may be indispensable, but these are exceptional cases, while our discussion deals only with the education of the average professional practitioner.

Of lesser value than mathematics and language, but still of very great importance are the subjects of general literature and history. The broadening effect and the general culture resulting from the study of these branches must always be considered an important factor in the attainment of professional success, and, as these of necessity can not be supplied by the professional curriculum, a liberal provision should be made for them in the high school course.

In the fourth rank of the secondary studies of importance in the preparation for professional life the writer would place the nature studies known collectively as the natural sciences. This subordination of the sciences will be objected to by many educators, who will argue that, since certain professional pursuits are based on and involve a thorough knowledge of one or more branches of natural science, these should therefore receive all the space that can possibly be given them in the high school, the knowledge gained here being regarded as so much of a gain on the regular professional course. The same argument might be alleged in favor of their inclusion in the grammar and primary grades, and indeed some enthusiastic advocates of nature studies would have them preponderate even here. With this reasoning I can not agree. The final rank of a subject in an educational system is not determined by the enthusiast, but by experience, which compels theoretic considerations to submit to practical necessity. Granting the general value of the science studies, and that considerable space is properly allotted to them in the secondary curriculum, I am not prepared to admit that their importance to professional training is such as to warrant any material increase in the time devoted to them. For this conclusion several reasons may be urged.

1 With perhaps the exception of physics, the disciplinary value of the nature studies is not great, much less, in fact, than that attributed to them by common repute.

2 If more than an elementary course in science be given in the high school, it must cause the displacement of subjects of greater disciplinary value.

3 No high school science course can be so complete or thorough as to relieve the student from the necessity of reviewing the sciences included in it when he comes to his professional education.

4 The special training should be left for the special school. It is not the business of the secondary school to give the student his professional education, but properly to prepare him for its reception, and for this the best preparation is a general training in the subjects pertaining to a liberal education.

Of the remaining subjects of the secondary school, as drawing, etc., but little need be said. Important they doubtless are, and beneficial to all students, whether preparing for professional or other pursuits, but not sufficiently so to warrant any increase of the time and energy spent on them with the design of increasing materially the future professional usefulness of the student.

After all, the value of the high school course lies more in the method of instruction pursued than in the subject-matter. To be more explicit, though the several branches of study may vary in educational value, this variation will have far less bearing on the future success of the student than possible variations in methods of study and instruction.

Proper habits of study, the ability to think accurately and analytically, and the power of application, concentration and earnestness, will always constitute a satisfactory basis for professional study and for subsequent professional life; and any or all of these qualities may be developed by the application of sound pedagogic methods to the subjects of the average high school course, provided the teacher will supplement his methods by conscientious effort.

These assertions are not to be understood as an attempt to minimize the importance of a proper selection of high school subjects, or as maintaining that all such subjects are of coordinate value, but as an attempt to emphasize the fact that methods of instruction are of supreme importance during the period of the secondary education.

The several conclusions arrived at in the preceding pages may be summarized as follows.

1 The mathematical subjects stand first in importance in the capability of imparting the intellectual training and mental habits which are necessary to a successful professional career. Their usefulness will be augmented by increasing the time spent on them in the secondary school if this be done without increasing the number or extent of the subjects.

2 Next to the mathematical subjects are placed the linguistic studies, because of their disciplinary value, and because of their importance in scientific terminology.

3 General literature and history deserve the third place, because of their cultural value and their liberalizing effect on the mind of the student.

4 The natural sciences have an important place in the secondary curriculum, but their disciplinary value is not great, and they are to be ranked below mathematics, language and literature as factors in the preparatory education.

5 The proper function of the secondary school is to qualify students to receive intelligently the instruction of the professional school, and not to displace the latter. Attempts to engross the functions of the technical school by the inclusion of professional subjects weaken the effectiveness of the secondary curriculum, without freeing the student from the necessity of retraversing the subjects when the professional course is finally taken up.

6 The writer contends for the preservation of the integrity of the full high school curriculum for all students alike, without regard to the lines to be pursued subsequent to graduation.

7 The value of proper methods of instruction during the secondary education can not be too strongly urged, and the selection of subjects is of far less importance than thorough preparation in the subjects selected.

Chanc. Upson—I desire to thank those who have taken part in these discussions, and to express the wish as you leave this almost sacred place to many of us, that you may have in your homes, in your work and in your lives the same influences perpetuated and blessing you that you have had here; and you will not expect that I should apologize for concluding these exercises by invoking the blessing of Almighty God.

Now may the peace of God that passeth understanding fill our hearts with joy and peace, and may the grace of Our Father, of the Lord Jesus Christ and the communion of the Holy Comforter abide with us all evermore. Amen.

NECROLOGY

REPORT OF COMMITTEE, C. W. BARDEEN

BOARD OF REGENTS

Cobb. A member of the board of regents from 1886 to 1895, when he resigned to become one of the state board of civil service commissioners, died May 29. Willard Adams Cobb was born in Rome (N. Y.) July 20, 1842; was graduated from Hamilton college in 1864; and, after editorial work on several other newspapers, became editor of the *Lockport daily journal*, which position he occupied till his death.

Malone. The past year has brought one death to the board of regents, taking away Rev. Sylvester Malone, whose life receives worthy tribute elsewhere.

COLLEGES

Bowen. Aug. 22, in New York, aged 54, Prof. H. C. Bowen, for 20 years connected with the school of mines of Columbia university.

Egleston. Jan. 15, in New York, Thomas Egleston, professor of mineralogy and metallurgy in Columbia university, and founder of the school of mines. He was born in New York Dec. 9, 1832, and after graduation from Yale in 1854, studied in France, graduating from the school of mines in 1860. Returning to America, he took charge of the mineralogic collection in the laboratory of the Smithsonian institution, and conceived the idea of a school of mines in New York city, which was started in 1864. He held the chair of mineralogy and metallurgy till two years ago, when he received the title of professor emeritus. He was one of the founders of the American institute of mining engineers, of the American meteorological society, the Society of mechanical engineers, and Society of electrical engineers, and was a member

of the Society of civil engineers of Great Britain. He was vice-president of the New York academy of sciences from 1869 to 1881; was associated with the agricultural and geologic survey of the Union Pacific railroad, was United States commissioner to examine the fortifications of the Atlantic coast in 1869, and was one of the jurors of the international exposition at Vienna in 1873. In 1874 he was made Ph. D. by Princeton university and LL. D. by Trinity college. In 1890 the government of France bestowed on him the rank of chevalier of the Legion of honor, and five years later the rank of officer. He wrote many works on metallurgy and mineralogy, most of which were translated into several different languages. He did mineralogic work for the United States, the Japanese, and the Russian governments.

Most of his estate is left to Trinity church for the maintenance of its parish schools, to teach children of both sexes to apply their faculties to earning a living.

Everett. May 7, in Brooklyn, Erastus Everett, aged 86. He was graduated from Dartmouth college in 1836, was for a time president of the college of New Orleans, but moved to Brooklyn in 1854. He was several years a professor in Rutgers female college and a lecturer in New York and New Jersey.

Galbreath. Aug. 14, in New York city, of typhoid fever, Lewis H. Galbreath. He was born in Illinois in 1861, was graduated from the normal school at Normal (Ill.) in 1885 and from Cornell university in 1890. After postgraduate work, he taught in the normal schools at Winona and Normal, and in the University of Buffalo school of pedagogy. He had been for the last year a fellow in Columbia university, and was under engagement in the new Charleston (Ill.) normal school. He was invited to succeed Arnold Tompkins in the University of Illinois, when the latter succeeded John W. Cook at Normal. His career promised much in the future.

Hopkins. July 27, in Clinton, Abel Grosvenor Hopkins, professor of Latin and dean of Hamilton college. He was born at Avon Springs, Dec. 5, 1844, was graduated from Hamilton college in 1866, and after a course at the Auburn theological seminary, where his father was a professor, became, in 1869, professor of Latin at Hamilton, which position he held till death. In the

classroom he was a very successful instructor. Prof. North once said he was worth two ordinary teachers. He was quite an athlete in college, and is said to have been the first pitcher who threw a curve ball. He kept himself at the front in classical teaching by diligent research at home and abroad, studying at Leipzig and at Rome in 1874 and in 1891. From 1891 to his death he was dean of the faculty. He was the author of several carefully prepared magazine articles, and of a textbook on Tacitus.

Kimball. Ap. 25, in Brooklyn, Rodney G. Kimball, since 1869 professor of mathematics in the Brooklyn polytechnic institute, and before that, teacher in the New York state normal college from 1855. During the civil war he was first captain of the normal school company.

Macy. July 6, at East Windham, aged 66, William C. Macy, professor of mathematics in Columbia university.

Richardson. June 30, in Berlin, Germany, Locke Richardson, formerly professor in Syracuse university, and a well-known reader and interpreter.

Rogers. Jan. 2, in Westerly (R. I.), Lester Courtland Rogers. He was born in Waterford (Ct.) Dec. 11, 1829, and, after graduation from Williams college and the Rutgers theological seminary, was for two years chaplain in the 27th New Jersey volunteers. After many years as a pastor, in 1888 he was appointed professor of history and political science in Alfred university, where he remained till failing health compelled him to resign in June 1898.

Smith. Feb. 8, in Waverly (Mass.), of sclerosis of the brain, George William Smith, former president of Colgate university. He was born in 1862 in Waterville (Me.) the son of the professor of English in Colby university, from which he was graduated in 1883. For two years he was principal of the high school at Wassitt (Me.) and in 1887 was graduated from the Albany law school. After two years' practice in St Paul, he entered Johns Hopkins university in 1890 as student of history, and remained for two years. He had been engaged as instructor in logic and psychology at Johns Hopkins, when he was made professor of history at Colgate. In 1895 he was made president of Colgate, and was installed Nov. 4. At the end of the second year he resigned on account of the disease which caused his death.

Van Rensselaer. Feb. 17 at Lakewood (N. J.), Rev. Maunsell Van Rensselaer D.D. LL.D. He was born in Albany Ap. 15, 1819, and after graduation from Union college and the General theological seminary, was admitted to holy orders in 1841. In 1859 he became president of De Veaux college, and in 1872 president of Hobart college, resigning in 1876.

Williams. May 13, in Ithaca, of paralysis, after an illness of five months, Samuel Gardiner Williams, late professor of pedagogy in Cornell university. He was born in Plainfield Aug. 19, 1827. After 18 years on the farm he entered the academy at Whitesboro, and was graduated from Hamilton college in 1850. He was principal at Groton from 1853 to 1856 and 1858 to 1859, at Seneca Falls 1856 to 1857, at Ithaca 1860 to 1869, and of the Central high school of Cleveland O., 1869 to 1879. In 1879 he became professor of geology at Cornell, and in 1886 the first professor of the art and science of teaching there, which position he resigned in 1898. While here he wrote his *History of modern education*, which became at once the standard textbook on the subject. He was also the author of *Applied geology* (1886) and valuable geological papers in *Silliman's journal*; and he presented several important papers before the University convocation. He was always prominent at teachers associations, and his burly form and hearty manner made him seem much younger than his years.

SECONDARY SCHOOLS

Former city superintendents

Scott. Mar. —, in San Diego (Cal.), Marcus W. Scott. He was born in Greene; and entered Madison university, though he did not graduate. After some teaching he joined the gold-seekers at Pike's peak in 1859, but, not being successful, lived for a time in Manhattan (Kan.), where he was deputy postmaster. The next three years he taught winters in a district school. He was for seven years teacher and principal in Newark (N. J.). He came to Binghamton in 1872 as principal of the Carroll street school. In 1876 he was made county clerk, and reelected. In 1882 he became superintendent of schools in Binghamton and held that office 14 years. In 1896 he was elected member of the board of education, and in 1898 reappointed for six years. He was president and business manager of the Herald publishing co.

Williams. Mar. —, in Watertown, William G. Williams, superintendent of schools, and for more than fifty years identified with the educational interests of Jefferson county. He was born in Hudson in 1829, and at 16 received his first teacher's certificate from Henry S. Randall, then county superintendent of Cortland county. He taught near Homer, and near Troy, but in 1848 came to Watertown and taught in what was then district no. 9. In the summer he attended the Jefferson county institute, from which he was graduated in 1851. For five years he was principal of schools at Brownville. In 1855 he was elected school commissioner, but before the expiration of his term accepted the position of principal of the Lamon street school in Watertown. In 1865 he became principal of the Arsenal street school, and in 1869 was made superintendent of schools. He resigned after a year to become postmaster, holding that office for 12 years. In 1893 he was again appointed to the superintendency.

Principals in active service

Black. Dec. —, in Gowanda, Charles A. Black, principal of the public school. He was born in Paris (Me.), in 1856, was graduated from Bowdoin college in 1875, and after teaching in Maine came to Schuylerville as principal. After a year at Salamanca, he became principal of the school at Gowanda, where he has since remained. Few principals have been more thoroughly trusted and beloved than Mr Black has been in Gowanda.

Smith. Ap. 24, in Lansingburg, Prin. Charles T. R. Smith, aged 53. He was born in Morrisonville, was graduated from Williams college in 1868, and, after teaching at Fayetteville and Port Byron, became on Aug. 25, 1872, principal of the Lansingburg academy, where he has since remained. He has always been prominent in the University convocation, and in the principals conference, and has been president of the latter.

Former principals

Abbott. July 7, in Worcester (Mass.), William Whittlesey Abbott, former principal of the union school at Spencer. After graduation from the Sheffield scientific school in 1877 and two years at Spencer, he was for several years principal of the Nauga-

tuck high school (Ct.), and later was principal at Great Barrington (Mass.). He had spent the last three or four years in North Carolina.

Bannister. June 7, in New York, of paralysis, William H. Bannister, former principal of the Rockland county institute, aged 76.

Bartean. Dec. 9, in Appleton (Wis.), Morris Rose Bartean. He was born in Suffolk county, Feb. 25, 1818, and was graduated from Hamilton in 1845, after which he was for two years principal of the school at Windsor.

Brookins. Ap. 11, Theodore F. Brookins, former principal at Ausable Forks. He was born in North Norwich in 1874, was graduated from the Norwich high school in 1894 and Colgate university in 1898, and became principal at Ausable Forks, where he remained till compelled by ill health to resign. He was a man of sterling character, and had begun what promised to be a successful career as a teacher.

Corbin. Aug. 24, in Albany, Ernest A. Corbin, principal of school no. 20. Few faces were more familiar at the University convocation than that of Ernest A. Corbin, who, from the time that he was principal across the river, and afterward teacher in the high school, till he became principal of one of the Albany schools, was a constant attendant. His death was sudden; and the tolling of the bells of the Roman catholic church in the parish where his school was situated was evidence of the hold he had on the hearts of his pupils and the community.

Gove. Ap. 11, in the hospital at New Castle (Pa.), aged 45, C. T. Gove, former principal of Ives seminary. For a time he conducted a commercial school in Watertown.

Hodgson. Dec. 12, in Newark, aged 67, of disease of the heart, Rev. Francis J. Hodgson. He was graduated from Wesleyan university in 1854, taught for a year in Lima seminary, and in 1855 became principal of the Newark union school. In 1857 he entered the ministry and went to Oregon, where he preached for three years. From 1860 to 1867 he was professor of mathematics in the University of California, and from 1869 to 1874 principal of the school at Seneca Falls, and from 1876 to 1883 of the school at Penn Yan. He then resumed preaching, retiring from the ministry four years ago.

Houpt. Aug. 11, in Dryden, aged 83, Henry H. Houpt, former school commissioner of Seneca county, and principal of the school at Ovid.

Miller. May 18, in Kirkland, Levi Duncan Miller, for more than a quarter of a century principal of the Haverling high school at Bath. He was born in Augusta, May 15, 1837, and was graduated from Hamilton college in 1862. He was principal at Medina, 1863 to 1864; at Littlefalls, 1864 to 1867; at Delhi, Delaware academy, 1868 to 1869; and at Forestville, 1870 to 1873. In 1873 he became principal of the Haverling high school, where he remained till his resignation in 1899. He made his school one of the educational powers of the state, not only through his skilful teaching, but through his personality. He was admitted to the bar in 1881, and was a powerful public speaker. In 1891 he was appointed by Pres. Harrison one of the visitors to the Naval academy. His brother, W. H. H. Miller, was for a time United States attorney-general. Of his four surviving children three are teachers, Prin. W. W. Miller, of Friendship, Prin. F. H. Miller, of Addison, Miss Elizabeth Miller, of the Sherman collegiate institute. P. M. Hull, conductor of institutes, is his brother-in-law.

Mills. May 15, in Syracuse, Rev. Charles de Berard Mills, a well-known reformer, lecturer, and author. He was born in New Hartford Jan. 15, 1821. His grandfather on his mother's side was a personal friend of Lafayette, who came to America to aid the colonies, and remained in this country. Mr Mills was a student at the Oneida institute and Lane seminary. In 1843 he began teaching in Sherburne academy, but resigned in 1845 on account of objection to his antislavery principles, and opened a private school in North Pitcher. In 1846 he went to Ohio and lectured. For six years he conducted a private school at Elyria (O.). In 1852 he came to Syracuse, and made it his home while engaged in frequent lecture tours. He wrote *Buddha and Buddhism*, *Pebbles, pearls and gems of the orient*, and the *Tree of mythology*. He was always devoted to philanthropic work, and was for many years secretary of the bureau of labor and charities and the Society for the prevention of cruelty to children. After the death of the Rev. Samuel J. May, his home became the recognized gathering place of those interested in philanthropy, reform and litera-

ture. He numbered among his friends some of the most prominent men and women of the century. Probably few men who ever lived have so fully realized the Homeric epithet "blameless" in their private life. He held himself to the strictest accountability, and yet his charity and courtesy enveloped all with whom he came in contact. At his funeral there were spoken tributes by representative leaders, who testified to the healthful and broadening influence of Mr Mills on their own lives, the two last speakers being Miss Emily Howland and Miss Susan B. Anthony.

Olin. Ap. 6, at Waltham (Mass.), John R. Olin, aged 30. He was graduated from Hobart college in 1893, and was appointed a teacher in the Watertown high school, where he remained for five years. During the last year he was its principal, succeeding E. W. Lyttle.

Orton. Oct. 16, in Columbus (O.), Edward Orton LL.D. He was born at Deposit (N. Y.), Mar. 12, 1829, was graduated from Hamilton college in 1848, studied theology at Lane seminary, and in 1851 began teaching in the Delaware Literary institute, where he remained till the fall of 1854, except for six months in 1853, when he was studying at Cambridge, under Professors Horsford and Gray. After a year at a theological seminary, he preached at Downsville, and from 1856 to 1859 was teacher of sciences in the New York state normal college. He was principal of the academy at Chester from 1859 to 1865; professor of natural sciences at Antioch college, 1865 to 1869; state geologist of Ohio, 1869 to 1899; president of Antioch college, 1872 to 1873; president of the Ohio state university and professor of geology, 1873 to 1881, when he was relieved of the presidency at his own request, but he retained the professorship till his death. He was the president in 1899 of the American association for the advancement of science.

Richards. Nov. 1, in Washington (D. C.), Zalmon Richards, aged 87. He was a graduate of Williams college, and was principal of Stillwater academy, Saratoga county, from its incorporation in 1839 till 1846. From 1849 to 1852 he was principal of the Columbian college preparatory school at Washington, and he then opened a high school of his own, which he continued till the outbreak of the civil war. In 1861 he became clerk in the United

States treasury, and on the establishment of the department of education in 1867 was appointed to a position there. He was then district auditor, and afterward superintendent of the schools of the city for one year. He was the first president of the National educational association, and had been one of its most constant attendants.

Sawyer. July 24, in Medford (Mass.), Rev. Thomas J. Sawyer, dean and professor emeritus of Tufts college, of which he was one of the founders. He was born in Reading (Va.), Jan. 9, 1804, and after graduation from Middlebury college was for two years a pastor in New York, when he became editor of the *Christian messenger*. He preached from 1832 to 1845, when he became principal of the Clinton Liberal institute. While there he took part in the founding of Tufts college, and of St Lawrence university, and was president of the board of trustees of both. He preached from 1852 till 1869, when he took the chair of theology at Tufts, retiring from active work in 1884.

Smith. Dec. 17, in Watertown, Hannibal Smith. He was born at Vermilion Nov. 29, 1839, was graduated from Hamilton college in 1866, and after studying law was from 1867 to 1869 principal of Littlefalls academy. He then entered the law department of Hamilton, and was admitted to the bar in 1870. He was then principal of the Watertown high school and superintendent of schools, which position he held till 1874, when he began the practice of law. He was afterward a member of the board of education, 1874 to 1889.

Towne. Sep. 12, at Leon, aged 39, Samuel Towne, a graduate of the Fredonia normal school, and principal of the school in Clymer from September 1875 to January 1877, when he resigned on account of consumption.

Turnbull. Oct. 6, at Colorado Springs (Col.), George Butler Turnbull. He was born in Delaware co. (N. Y.), July 22, 1857, was prepared for college at Homer and Colgate academies, and was graduated from Colgate university in 1880. For two years he was principal of the school at Smithville Flats, and for seven years teacher of Latin in Colgate academy. In 1888 failing health took him to Colorado Springs, where in 1889 he was appointed principal of the Garfield school. In 1890 he was promoted to the

position of principal of the high school, which position he held till his death. At his funeral the pastor said: "His life was an open book, a transparent crystal. Strike the metal of him when and where you would, the ring of it was true. He had nothing to conceal; no friend was ever asked to keep dark secrets of his. He needed no father confessor; no more self-revealing the sunbeams, nor more reliable, nor more beneficent." This judgment will be confirmed by those who knew him in New York.

Whitmore. Mar. 20, in Marathon, Daniel E. Whitmore. He was born Jan. 6, 1825, at Columbus, Chenango county, and in 1848 taught in Cortland academy, under Dr Woolworth. He was afterward principal of the school at Marathon, teacher in Homer academy, and principal of the school at Canandaigua. In 1857 he was elected school commissioner in Cortland county, which position he held for five consecutive terms. For eight years he was president of the board of education of Marathon union school. In 1852 Hamilton college conferred on him the degree of M. A. In 1875 he was member of assembly from Cortland county.

All these men waited till death came to them. Two ex-principals went to meet it.

Capen. June 6, in Buffalo, Frank S. Capen committed suicide by inhaling gas. He was a graduate of the University of Rochester, and one of the original faculty in 1869 of the Cortland normal school. Except for two years when he was professor of physics in Colby university, he remained here till 1886, when he became principal of the high school at Norwich. In 1888 he was elected principal of the normal school at New Paltz. This position he lost in 1898, and had attempted the insurance business in Buffalo. He was unable to find successful employment and suffered from melancholia. The night before his death his wife sat by his bedside all night. In the morning he told her that, had she not done so, he would have committed suicide. While his wife was away the next day, he locked himself in his room and inhaled illuminating gas through a rubber tube, tying a towel over his face. When found he was dead.

Manro. On Oct. 19, William D. Manro leaped from one of the bridges over the Mississippi river in Minneapolis into the rapids 100 feet below, and was drowned. He was born in Auburn in

1864, and was graduated from the Auburn high school, from the Phillips Andover academy, and from Yale university. After teaching for a year in Minnesota he came to this state as principal of the school at Sherburne. Thence he was called to Fairport, and thence to Rome as superintendent of schools, insisting on taking this place, though he was offered half as much more salary at St Paul's school, Garden City, because he liked the work of superintendency. In 1897 he became superintendent of schools in Paterson (N. J.). He yielded to influences he found at Paterson, and was eventually obliged to resign. He endeavored to start again; he recognized his situation, and was willing to begin with a small principalship, that he might attempt to recover once more what he had lost. But he had become nervous in manner, and it was difficult to find a board ready to make the experiment. He became melancholy; eventually his mind became affected to such an extent that he thought he had committed some offense against the law, and he made attempts to deliver himself up to the authorities. At the time of his death he had no doubt passed beyond the boundary of sanity. And so has ended a life that but for a single failing would have been brilliant. He was a man of excellent presence, a gentleman in appearance and manner, quick, bright, pleasing, clear-headed, fertile in resource, abounding in friends and always loyal to them. As superintendent he knew and trusted his teachers, and was beloved by them.

PRAYER

BY CHANCELLOR UPSON

O Lord, Thou are our God, in Thee we live, in Thee we move, in Thee we have our being. Thou dost order our lives, Thou dost know the time and circumstances of our departure. We thank Thee, O Lord, for these Thy servants who have served Thee in this life; and we believe Thou has called them to higher service in Thy kingdom. We thank Thee for their faithfulness, for their purpose and for their fidelity to it. And those who took their lives into their own hands, we trust that Thou hast forgiven them and hast received them into Thy everlasting kingdom. Hear us, O Lord, in this our prayer, forgiving our sins, and helping us ever more in this life to serve Thee with faithfulness, that we may inherit the kingdom that is prepared for us from the foundation of the world; and to Thy name we will give the glory evermore. Amen.

ATTENDANTS

AT

38th University Convocation of the State of New York

Under names of institutions those not specially designated are teachers and instructors.

The name of a college in curves following the name of a person is that of the institution where he was educated.

Regents of the University

1 Anson Judd Upson (Hamilton) L.H.D. D.D. LL.D. *chancellor*; 2 Charles E. Fitch (Williams) LL.B. M.A. L.H.D.; 3 William H. Watson (Brown) M.A. M.D.; 4 St Clair McKelway, LL.D. L.H.D. D.C.L.; 5 Hamilton Harris, Ph.D. LL.D.; 6 Daniel Beach (Alfred) Ph.D. LL.D.; 7 Pliny T. Sexton (Union) LL.D.; 8 T. Guilford Smith (Rensselaer polytechnic institute) M.A. LL.D. C.E.; 9 Albert Vander Veer, M.D. Ph.D.; 10 Thomas A. Hendrick (Seton Hall) M.A. LL.D.

University departments

Administrative department. 11 James Russell Parsons jr (Trinity) M.A. *secretary*; 12 Henry I. Knickerbocker, *head clerk*; 13 Harriett B. Kennedy, *bookkeeper*; 14 Minnie L. Vanderzee, *stenographer*; 15 Alice C. McCormack, *report clerk*; 16 Catharine Benjamin, *sub-printing clerk*; 17 Martha L. Phelps, 18 Grace D. Allen, 19 Laura B. Carey, 20 E. Martile Comstock, 21 Lyman H. Hurd, *clerks*.

College and High school departments. 22 Herbert J. Hamilton, *director's clerk*; 23 Edward S. Frisbee (Amherst) M.A. D.D., 24 Annie T. Keyser (Cornell) *assistants*; 25 Jane Knight Weatherlow (Wellesley) B.A., 26 Eugenia Radford (Chicago) B.A., 27 Richard E. Day (Syracuse) M.A. Lit.D., 28 Laura Mazella Secor, 29 Alice H. Hall, 30 H. A. Hamilton (Rochester and Johns Hopkins) Ph.D., 31 Sara L. Gardiner, 32 George H. Quay, 33 Everett O'Neill (Cornell) Ph.B., 34 John Barber Creighton (Colgate) Ph.B., 35 Grace Elsie Smith (Syracuse) Ph.B., 36 Grace A. Jones, 37 Charlotte L. Estes (Vassar) *examiners*; 38 Isabel Lamont, 39 Marcia M. Vander Veer, 40 Helen Guardineer, *clerks*.

Inspection division. 41 Charles F. Wheelock (Cornell) B.S. *head inspector*; 42 Charles N. Cobb (Syracuse) M.A., 43 Arthur G. Clement (Rochester) B.A., 44 Charles Davidson (Iowa and Yale) M.A. Ph.D., 45 Eugene W. Lyttle (Hamilton) M.A. Ph.D., 46 S. Dwight Arms (Hamilton) M.A., 47 I. O. Crissy, *inspectors*; 48 J. H. Gibson, *apparatus inspector*; 49 Fred-eric M. Baker, *apparatus clerk*.

State library. 50 Melvil Dewey (Amherst) M.A. *director*; 51 Walter S. Biscoe (Amherst) M.A. *senior librarian*; 52 Stephen B. Griswold LL.B. *law librarian*; 53 Dunkin V. R. Johnston (Hobart) M.A., *reference librarian*; 54 Florence Woodworth B.L.S. (N. Y.) *director's assistant*; 55 Salome Cutler Fairchild (Mt Holyoke) B.L.S. (N. Y.) *vice-director library school*; 56 May Seymour (Smith) B.A. *education librarian*; 57 Robert H. Whitten (Columbia) Ph.D. *sociology librarian*; 58 Judson T. Jennings (Union) *reference assistant*; 59 Arthur L. Bailey (Tufts) B.L.S. (N. Y.) *sub-librarian*; 60 Mary L. Sutliff, 61 Mary Floyd Williams (University of California), 62 Herbert McKnight (Cornell) B.L., 63 Faith E. Smith (Northwestern univ.) Ph.B., 64 Mabel C. Dobbin (Cornell) Ph.B., *assistants*; 65 Charlotte S. Fearey, *cataloguer*; 66 George Thurston Waterman, *shelf clerk*; 67 Elizabeth Gilbert, 68 Elizabeth B. Wolston, 69 Joseph Gavit, *clerks*.

Home education department. 70 William R. Eastman (Yale) M.A. B.L.S. (N. Y.) *library inspector*; 71 Harriet Hawley (Stanford) *director's assistant in extension teaching*; 72 Mary Ellis, *indexer*; 73 Anna Louise Morse (Smith) B.A., 74 Robert K. Shaw (Harvard) B.A., 75 E. May Greenman, *assistants*.

State museum. 76 Frederick J. H. Merrill (Columbia) Ph.D. *director*; 77 John M. Clarke (Amherst, Göttingen and Marburg) M.A. Ph.D. *state paleontologist*; 78 E. Porter Felt (Boston and Cornell) D.Sc. *state entomologist*; 79 Charles S. Banks, 80 Margaret Fursman Boynton (Cornell) Ph.B. *assistants*; 81 Joseph Morje, *clerk and stenographer*.

INSTITUTIONS IN THE UNIVERSITY

Colleges for men

Columbia university, New York. 82 Dean Nicholas Murray Butler (Columbia) Ph.D. LL.D.

New York university. 83 M. Stanleyetta Titus Werner (Normal coll. of City of N. Y. and New York university) LL.B.

Colgate university, Hamilton. 84 Pres. George E. Merrill (Harvard) D.D.; 85 W. H. Maynard (Hammond) D.D.; 86 Albert Perry Brigham (Colgate and Harvard) M.A.

St John's college, Fordham. 87 Pres. T. J. Campbell (St Francis Xavier) M.A.; 88 John Butler (St John's college, Fordham) B.A.

University of Rochester. 89 Charles Wright Dodge (Michigan) M.S.; 90 George M. Forbes (Rochester) M.A.

College of the City of New York. 91 Lewis F. Mott (College of the City of New York and Columbia) Ph.D.; 92 Charles G. Herbermann (St Francis Xavier) Ph.D. LL.D.; 93 William Stratford (College of the City of New York and New York university) Ph.D.

College of St Francis Xavier, New York. 94 M. H. O'Brien (St Francis Xavier)

Manhattan college, New York. 95 Bro. Adjutor (Manhattan) B.S.; 96 Bro. Amos (Manhattan); 97 Bro. Chrysostom (Manhattan); 98 John Martin (United States naval academy and Lehigh university) C.E.; 99 Cornelius M. O'Leary (New York university) Ph.D. LL.D. M.D.

St John's college, Brooklyn. 100 E. L. Carey (St Vincent's seminary, Phila.) *secretary*.

Canisius college, Buffalo. 101 Aloysius Pfell (Canisius college) S.J. *prefect of studies*.

Niagara university, Suspension Bridge. 102 George J. Eckhardt (St Vincent's seminary, Phila.)

St Francis college, Brooklyn. 103 Bro. Fidelis Carrier (St Francis college) O.S.F. *rector*.

Holy Angels college, Buffalo. 104 Pres. Terence W. Smith (Ottawa) M.A. O.M.I.

Colleges for women

Elmira college. 105 Pres. A. Cameron MacKenzie D.D.

Normal college of the City of New York. 106 Pres. Thomas Hunter, M.A. Ph.D. LL.D.; 107 Eugene Aubert B.A.; 108 Prof. J. A. Gillet (Harvard) B.A.

Wells college, Aurora. 109 Pres. W. E. Waters (Yale) Ph.D.

Colleges for men and women

Alfred university. 110 Pres. Boothe Colwell Davis (Alfred and Yale) Ph.D.; 111 Alpheus B. Kenyon (Alfred) M.S. *registrar*; 112 Edward M. Tomlinson (Bucknell university) M.A.

Cornell university, Ithaca. 113 Prof. George P. Bristol (Hamilton) M.A.; 114 Charles De Garmo (Normal, Ill. and Halle) Ph.D.

Schools of education

Teachers college, Columbia university, New York. 115 C. R. Richards (Massachusetts institute of technology) B.S.

New York state normal college. 116 Pres. William J. Milne (Rochester) Ph.D. LL.D.; 117 W. B. Aspinwall (Harvard and N. Y. S. normal college) B.A.; 118 A. N. Husted (N. Y. S. normal college) M.A. Ph.D.; 119 Mary A. McClelland (N. Y. S. normal college); 120 Junius L. Meriam (Oberlin college and N. Y. S. normal college) B.A.; 121 Leonard W. Richardson (Trinity) M.A. LL.D.; 122 Kate Stoneman (N. Y. S. normal college) LL.B.; 123 William V. Jones (N. Y. S. normal college) Ph.D., *principal of high school dep't*; 124 Anna E. Husted (N. Y. S. normal college); 125 James Robert White (Wesleyan and N. Y. S. normal college) M.A. Ph.B. *principal of grammar dep't*; 126 Anna E. Pierce, *principal of primary dep't*.

Schools of medicine

Union university, Albany medical college. 127 F. C. Curtis (Beloit college) M.D.

Schools of dentistry

New York dental school. 128 Dean Charles Milton Ford (Hamilton) M.A. M.D.

Academies, high schools and academic departments

Academy of the Holy Names, Albany. 129 Sister M. Fredericka, *directress*; 130 Sister Alphonsus.

Addison high school. 131 Prin. F. H. Miller (Hamilton) B.A.

Albany academy. 132 Jared W. Scudder (Rutgers).

Albany high school. 133 Sup't Charles W. Cole (Hamilton) M.A. Ph.D.; 134 Com'r Harlan P. French (Amherst) M.A.; 135 Prin. Oscar D. Robinson (Dartmouth) Ph.D.; 136 B. O. Burgin (Union) B.E.; 137 Agnes R. Davison; 138 Julia A. Gilbert; 139 Carrie P. Godley; 140 W. D. Goewey (Wesleyan); 141 Austin Sanford (Dartmouth) M.A.

Amityville union school. 142 Prin. Charles Warren Hawkins (Wesleyan) Ph.B.

Amsterdam high school. 143 Prin.-elect James Baird (Amherst).

Andover high school. 144 Prin. Albert C. Gillette (Illinois Wesleyan and Geneseo normal) Ph. B.

Argyle high school. 145 Prin. E. M. Sanford (Syracuse and N. Y. S. normal college) B.A.

Athens union school. 146 Prin. G. C. Lang (N. Y. S. normal college).

Attica high school. 147 Prin. A. M. Preston M.A.

Bainbridge high school. 148 Prin. F. W. Crumb (Alfred) M.A.

Ballston Springs high school. 149 Prin. A. A. Lavery (Middlebury college) M.A.; 150 Helena Whalen.

Barlow school of industrial arts, Binghamton. 151 Prin. Vinton S. Paessler (University of Wooster and Massachusetts institute of technology).

Batavia high school. 152 Sup't and Prin. John Kennedy (Cornell).

Bath on Hudson high school. 153 Prin. William H. Good (Central university and N. Y. S. normal college) M.A.; 154 Mary A. New (N. Y. S. normal college); 155 Anna E. Wygant.

Bayport union school. 156 Prin. William D. Miller (Cortland normal).

Bayshore high school. 157 Harry M. Brewster, *member board of education*; 158 Prin. Charles W. Mulford (Oneonta normal); 159 Elizabeth R. Mulford (Oneonta normal).

Binghamton high school. 160 Sup't Darwin L. Bardwell (Amherst) M.A.

Brooklyn manual training high school. 161 Prin. Charles D. Larkins Ph.B.

Cambridge high school. 162 Prin. Ernest E. Smith (Amherst) B.A.

Canandaigua high school. 163 Sup't J. C. Norris M.A. (Williams) Ph.D. (Hamilton).

- Canastota high school.** 164 Prin. George H. Ottaway (Hamilton) M.A.
- Canton high school.** 165 Prin. Allen Howe Knapp (Harvard) B.S.
- Chateaugay high school.** 166 Prin. E. F. McKinley (Cornell) B.A.
- Chatham high school.** 167 Prin. W. H. Lynch (Oneonta normal and Harvard) B.A.
- Christian Brothers academy,** Albany. 168 Bro. Jerome.
- Clinton Liberal institute,** Fort Plain. 169 Prin. William Cary Joslin (Brown university) L.H.D.
- Cobleskill high school.** 170 Prin. W. H. Ryan (Wesleyan, Illinois) M.A.
- Cook academy,** Montour Falls. 171 Prin. F. L. Lamson (Rochester) B.A.
- Corning free academy.** 172 Sup't Leigh R. Hunt (Hamilton) M.A. Ph.D.
- Cornwall on the Hudson high school.** 173 Prin. Fred Carleton White (Alfred) B.A.
- Crownpoint union school.** 174 Prin. Arthur B. Vossler (Union and N. Y. S. normal college) M.A.
- Dansville high school.** 175 Prin. E. J. Bonner (Hamilton and Potsdam normal) B.A.
- Deposit high school.** 176 Anna Clark (N. Y. S. normal college).
- Dundee high school.** 177 Prin. J. M. Thompson (Colgate) Ph.B.
- East Aurora high school.** 178 Katherine Hulst (Syracuse) B.A.
- East Islip union school.** 179 Prin. Howard M. Tracy (Cortland normal).
- East Syracuse high school.** 180 Prin. Samuel Reed Brown (Hamilton) M.A.
- Ellenville high school.** 181 Prin. John W. Chandler Ph.D.
- Elmira free academy.** 182 Prin. Charles W. Evans (Ohio Wesleyan) M.A.
- Fort Edward collegiate institute.** 183 Joseph E. King (Wesleyan) Ph.D. D.D.
- Fort Edward high school.** 184 Prin. William S. Coleman (Mt Hope and N. Y. S. normal college) Ph.B.
- Fulton high school.** 185 Prin. Byron G. Clapp (Syracuse).
- Genesee Wesleyan seminary,** Lima. 186 Pres. B. W. Hutchinson (Boston and Ohio Wesleyan) M.A. S.T.B.
- Geneva high school.** 187 Sup't and Prin. W. H. Truesdale (Rochester) M.A.
- Glens Falls academy.** 188 Prin. D. C. Farr (Williams) Ph.D.
- Glens Falls high school.** 189 Elizabeth Christian (Cornell) B.S.

Gloversville high school. 190 Sup't James A. Estes (Alfred) M.A.; 191 Prin. George Millard Davison (Cornell) B.A.

Goshen high school. 192 Prin. G. H. Baskerville (Syracuse) B.A.

Granville high school. 193 Prin. Raymond E. Brown (Alfred and N. Y. S. normal college) Ph.B.

Greenwich high school. 194 Prin. C. L. Morey (Syracuse and Illinois Wesleyan) Ph.B.

Hammondsport high school. 195 Prin. M. C. Plough (N. Y. S. normal college).

Hartwick union school. 196 Prin. George H. Studley; 197 Julia S. Studley (N. Y. S. normal college).

Haverstraw union school. 198 Sup't L. O. Markham (N. Y. S. normal college).

Hillsdale union school. 199 Prin. Frederick P. Webster (Syracuse) B.S.

Hilton high school. 200 Prin. William R. True (Brockport normal).

Hobart high school. 201 Prin. J. N. Vedder (Union) M.A.

Homer academy and union school. 202 Prin. Lewis H. Tuthill (Cornell) M.A.

Hoosick Falls high school. 203 Sup't H. H. Snell (Alfred) Ph.B.; 204 Vice-Prin. B. Frank Cooley (Brockport normal).

Ilion high school. 205 Prin. A. W. Abrams (Cornell) Ph.B.

Johnstown high school. 206 Sup't Frank W. Jennings (Hamilton) M.A. Ph.D.; 207 H. L. Willis (Hamilton).

Jordan free academy. 208 Prin. Arthur C. Nute (Rochester) B.A.

Keuka institute, Keuka college. 209 Prin. Frank Carney (Cornell).

Kingston free academy. 210 Prin. Myron J. Michael (Tufts) M.A.; 211 J. R. Gillett (St Lawrence university) B.A.

Lake George union school, Caldwell. 212 Prin. George C. Perry (Union) B.S.

Lake Placid union school. 213 Prin. Charles Mills Slocum (Williams and N. Y. S. normal college) B.A.

Leroy high school. 214 Prin. J. C. Benedict (Geneſeo normal) Ph.B.

La Salle academy, New York. 215 Bro. E. Victor (La Salle college) B.A.; 216 Bro. Edward.

La Salle institute, Troy. 217 Bro. Arnold (Manhattan) B.S.; 218 Bro. Paphylinus.

Manlius high school. 219 Prin. Asa S. Knapp (Cortland normal).

Matteawan high school. 220 Prin. Gurdan R. Miller (Syracuse) Ph.B.

Mechanicville high school. 221 Sup't L. B. Blakeman (Hamilton) M.A.; 222 Prin. Louis R. Wells (Tabor college) B.A.

Mexico academy and high school. 223 Prin. F. R. Parker (Queens university) B.A.; 224 A. H. Norton (Syracuse) B.S.

Middleburg high school. 225 Prin. Silas C. Kimm (Allegheny college, Taylor university) M.A. Ph.D.

Middletown high school. 226 Sup't and Prin. James F. Tuthill (Cornell) B.A.

Millbrook memorial school. 227 Prin. William R. Anderson (Oneonta normal).

Mineville high school. 228 Prin. Samuel D. McClellan (Plattsburg normal).

Mumford union school. 229 Prin. Eugene M. Lath (Brockport normal).

Nazareth academy, Rochester. 230 Prin. Thomas F. Hickey.

Newark high school. 231 Prin. Charles A. Hamilton (Rochester) M.A.

New Hartford high school. 232 Prin. Arthur M. Scripture (Hamilton) M.A.

New York state school for the blind, Batavia. 233 Julia E. Barry (Geneseo normal).

Niagara Falls high school. 234 Prin. Thomas B. Lovell, M.A. (Rochester) LL.D. (Hobart); 235 Prin. R. A. Taylor (Potsdam normal).

Olean high school. 236 Sup't Fox Holden (Cornell and Union) M.A. LL.B.; 237 Prin. Olin Wilson Wood (Syracuse) Ph.B.

Oneida high school. 238 Sup't Avery W. Skinner (Syracuse) B.A.

Oneonta high school. 239 Sup't William C. Franklin (Rutgers and N. Y. S. normal) M.A.; 240 Prin. Robert S. Roulston (St Lawrence university) M.S.

Owego free academy. 241 Prin. E. J. Peck (Williams) M.A. LL.D.

Oxford academy and union school. 242 Prin. Robert K. Toaz (Rochester) B.A.

Oyster Bay union school. 243 Prin. Clifford A. Woodard (N. Y. S. normal school).

Palmyra classical high school. 244 Prin. William J. Deans (St Lawrence university).

Patterson union school. 245 Prin. Ulysses F. Axtell (Colgate) B.A.

Penn Yan academy. 246 Sup't Jay Crissey (Fredonia normal); 247 Prin. Howard Conan (Union) B.A.; 248 Lucy Virginia Wade (Cortland normal).

Perry high school. 249 Prin. H. C. Jeffers (Rochester) B.S.

Philadelphia union school. 250 Prin. Hiram D. Hall (Potsdam normal).

Phoenix high school. 251 Prin. J. S. Fox (Brown university) B.A.

Plattsburg high school. 252 Sup't Frederic H. Davis (Hamilton) B.A.

Ponckhockie union school, Kingston. 253 Prin. W. A. McConnell (N. Y. S. normal college).

Port Henry high school. 254, Prin. P. F. Burke (Middlebury) M.A.

Port Jefferson union school. 255 Prin. E. D. Myers (Oneonta normal)..

Poughkeepsie high school. 256 Sup't Edwin S. Harris (Union); 257 Prin. James Winne (Hamilton) M.A.

Pulaski academy and union school. 258 Prin. Charles M. Bean (Cornell) B.S.

Red Hook union school. 259 Prin. D. C. Lehman.

Renssen high school. 260 Prin. Andrew J. MacElroy (Cornell) B.S.

Rensselaer high school. 261 Sup't R. W. Wickham (N. Y. S. normal college); 262 Prin. Louis F. Robins.

Rhinebeck union school. 263 Prin. Burtis E. Whittaker (Brown and N. Y. S. normal college) B.A.

Rochester Atheneum and mechanics institute. 264 Prin. E. C. Colby (Massachusetts normal art school).

Rochester high school. 265 Prin.-elect A. H. Wilcox (Rochester) M.A.

Round Lake academy. 266 Prin. Merwin D. Losey (Wesleyan and N. Y. S. normal college) M.A.

Sag Harbor union school. 267 Prin. Charles W. Armstrong (N. Y. S. normal college).

St Bernard's academy, Cohoes. 268 Sister M. Ludwina; 269 Sister St John.

St John's academic school, Schenectady. 270 Sister Mary of Lourdes; 271 Sister M. Rose of Calvary; 272 Sister M. Eligius.

St John's academy, Albany. 273 J. T. Slattery (Manhattan) M.A.

St John's academy of Rensselaer. 274 Prin. John F. Glavin (St Charles' college) M.A.; 275 Sister M. Evangelist; 276 Sister Mary Dolores; 277 Sister Mary Leo (Worcester (Mass.) normal school); 278 Sister Mary Martha.

St Joseph's academic school of Batavia. 279 Sister M. Helena, *principal*; 280 Sister M. Borgia, *vice-principal*.

St Joseph's academy, Albany. 281 Sister Appolline; 282 Sister Loretto.

St Patrick's school, Watervliet. 283 Sister M. Aloysius; 284 Sister M. Anastasia.

St Peter's academy, Rome. 285 Sister Mary Patrick, *principal*; 286 Sister M. Augusta.

Sandyhill high school. 287 Prin. Frances A. Tefft.

Saratoga Springs high school. 288 Sup't Thomas R. Kneil (Wesleyan) M.A.; 289 Prin. Walter S. Knowlson (Hamilton) M.A.

- Saugerties high school.** 290 Prin. Fred N. Moulton (Union).
- Savannah high school.** 291 Prin. Ernest G. Merritt (Cornell) B.S.
- Schenectady union classical institute.** 292 Prin. Arthur Marvin (Yale) M.A.; 293 Sarah M. Pratt (Smith) B.A.
- Schenevus union school.** 294 Prin. Floyd S. Lowell; 295 Lois R. Brewster (Oneonta normal).
- Schoharie union school.** 296 Prin.-elect William F. H. Breeze (Union and N. Y. S. normal college) Ph.B.
- Schuylerville high school.** 297 Prin. Nelson L. Coleman (Colgate) B.A.
- Sharon Springs union school.** 298 Prin. Howard J. Jump (Oneonta normal).
- Sidney high school.** 299 W. E. Bonner, *trustee*.
- Sodus academy.** 300 Prin. Elisha Curtiss (Union) M.A.
- Solvay high school.** 301 Sup't and Prin. C. O. Richards.
- South Glens Falls high school.** 302 Prin. Chester G. Sanford (Rochester) M.A.
- South Side high school, Rockville Center.** 303 Prin. J. Anthony Bassett (Rochester) M.A.
- Southampton high school.** 304 Prin. Charles Ernst Keck (Hamilton) M.A.
- Stillwater union school.** 305 Prin. Willis U. Hinman (Brockport normal).
- Syracuse high school.** 306 William Joseph Pelo (Harvard) B.A.
- Temple Grove seminary, Saratoga Springs.** 307 Pres. Charles F. Dowd M.A. (Yale), Ph.D. (New York university).
- Ticonderoga high school.** 308 Prin. Fred V. Lester (Colgate) M.A.
- Troy high school.** 309 Sup't J. H. Willets; 310 Prin. M. H. Walrath (Syracuse) M.A.; 311 Arthur F. Gardner (Bucknell and Cornell) M.A.; 312 H. L. F. Morse (Harvard) B.A.; 313 Edith Read (Cornell) B.S.
- Unadilla high school.** 314 Prin. A. E. Barnes (Union) M.A.
- Union union school.** 315 Prin. J. L. Lusk (Cortland normal).
- Utica free academy.** 316 Sup't George Griffith (Hamilton) Ph.D.
- Valatie high school.** 317 Prin. W. L. Millias (Colgate).
- Valley Falls union school.** 318 Edwin Buchman, *president board of education*; 319 Prin. Fred J. Bohlmann (Wesleyan) B.A.; 320 Harriet F. Stockham (Brockport normal).
- Warwick institute.** 321 Prin. L. W. Hoffman (Ohio) Ph.M.
- Waterford high school.** 322 Sup't Alexander Falconer, M.A.; 323 Ella P. Hiller; 324 Anna R. Mooney (N. Y. S. normal college).
- Waterloo high school.** 325 Prin. Thomas C. Wilber (Rochester) M.A.

Watervliet high school. 326 Sup't J. Edman Massee (Hamilton) B.A.; 327 Prin. James A. Ayers (Hamilton) B.A.; 328 Chyllean P. Luther.

Waverly union school of Tuckahoe. 329 Prin. Arthur C. Haff (Plattsburg normal).

Wellsville high school. 330 Prin. Lewis W. Craig (Wesleyan) M.A.

Westport high school. 331 Prin. Edgar W. Ames (Williams and N. Y. S. normal college).

Whiteplains high school. 332 Jennie S. McLaughlin (Geneseo normal).

Whitesboro union school. 333 Prin. Charles V. Bookhout (N. Y. S. normal college).

Yonkers high school. 334 Prin. Thomas O. Baker (Lebanon college and New York university) Ph.D.

Business schools

Eastman, Poughkeepsie. 335 Pres. Clement C. Gaines (University of Virginia) M.A. L.B.

Ramsdell school of business and shorthand, Middletown. 336 Prin. W. C. Ramsdell.

OUTSIDE THE UNIVERSITY

Department of Public Instruction

337 L. O. Wiswell, *librarian*; 338 Thomas E. Finegan (N. Y. S. normal college) M. A. *supervisor of examinations*; 339 Frederick R. Stevens (Brockport normal), 340 C. W. Halliday, 341 Edwin J. Howe (Geneseo normal) *examiners*; 342 Isaac H. Stout, *supervisor of institutes*; 343 Sherman Williams (N. Y. S. normal college) *institute conductor*; 344 Frank H. Wood, *supervisor of training classes*; 345 Willis D. Graves (N. Y. S. normal college) Ph.B., 346 A. C. Hill (Colgate) Ph.D. *training class inspectors*.

Universities and colleges

Bowdoin college, Brunswick Me. 347 Harry de F. Smith (Bowdoin and Harvard) M.A.

Rutgers college, New Brunswick N. J. 348 Prof. Elliot R. Payson (Hamilton) Ph.D.

Wisconsin university. 349 J. C. Monaghan (Brown university).

Normal schools

Jenny Hunter kindergarten training school. 350 Prin. Jenny Hunter (Normal coll. of City of N. Y.).

Special schools

State library school, University of Illinois, Urbana. 351 Katharine L. Sharp (Northwestern university) Ph.M. B.L.S. (N. Y.) *head librarian and director*.

Academies, high schools and academic departments

Brookline [Mass.] high school. 352 Alice Peloubet Norton (Smith and Massachusetts institute of technology) M.A.

Charlton academy. 353 Prin. Mary E. Callaghan (N. Y. S. normal college).

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University of the State of New York

Object. The object of the University as defined by law is to encourage and promote education in advance of the common elementary branches. Its field includes not only the work of academies, colleges, universities, professional and technical schools, but also educational work connected with libraries, museums, university extension courses and similar agencies.

The University is a supervisory and administrative, not a teaching institution. It is a state department and at the same time a federation of more than 800 institutions of higher and secondary education.

Government. The University is governed and all its corporate powers exercised by 19 elective regents and by the governor, lieutenant-governor, secretary of state and superintendent of public instruction who are *ex officio* regents. Regents are elected in the same manner as United States senators; they are unsalaried and are the only public officers in New York chosen for life.

The elective officers are a chancellor and a vice-chancellor, who serve without salary, and a secretary. The secretary is the executive and financial officer, is under official bonds for \$10,000, is responsible for the safe-keeping and proper use of the University seal and of the books, records and other property in charge of the regents, and for the proper administration and discipline of its various offices and departments.

Powers and duties. Besides many other important powers and duties, the regents have power to incorporate, and to alter or revoke the charters of universities, colleges, academies, libraries, museums, or other educational institutions; to distribute to them funds granted by the state for their use; to inspect their workings and require annual reports under oath of their presiding officers; to establish examinations as to attainments in learning and confer on successful candidates suitable certificates, diplomas and degrees, and to confer honorary degrees.

They apportion annually an academic fund of about \$250,000, part for buying books and apparatus for academies and high schools raising an equal amount for the same purpose, \$100 to each nonsectarian secondary school in good standing and the remainder on the basis of attendance and the results of instruction as shown by satisfactory completion of prescribed courses for which the regents examinations afford the official test. The regents also expend annually \$25,000 for the benefit of free public libraries.

Regents meetings. The annual meeting is held the third Thursday in December, and other meetings are held as often as business requires. An executive committee of nine regents is elected at the annual meeting to act for the board in the intervals between its meetings, except that it can not grant, alter, suspend or revoke charters or grant honorary degrees.

Convocation. The University convocation of the regents and the officers of institutions in the University, for consideration of subjects of mutual interest, has been held annually since 1863 in Albany. It meets Monday, Tuesday and Wednesday after the fourth Friday in June.

Though primarily a New York meeting, nearly all questions discussed are of equal interest outside of the state. Its reputation as the most important higher educational meeting of the country has in the past few years drawn to it many eminent educators not residents of New York, who are most cordially welcomed and share fully in all discussions. A council of five is appointed by the chancellor to represent it in intervals between meetings. Its proceedings, issued annually, are of great value in all educational libraries.

Institutions in the University NOVEMBER 1900	No.	STUDENTS	
		Men	Women
Universities and colleges of liberal arts			
For men	22	3 850	32
" women	5	2	2 842
" men and women	7	1 360	950
Total	34	5 212	3 824
Professional and technical schools			
Theology	16	787	6
Law	7	2 161	43
Education	3	278	1 890
Medicine	13	3 129	206
Dentistry	3	487	11
Pharmacy	5	531	25
Veterinary medicine	2	82	1
Ophthalmology	1	3	1
Engineering and technology	5	929	12
Art	3	42	826
Music	4	197	555
Other	17	45 359	22 556
Total	79	13 985	6 132
Academies			
Academies (incorporated)	106	4 099	4 647
Senior academic schools	4	93	175
Middle "	11	133	200
Junior "	18	456	246
Special	3	901	1 906
Total	142	5 682	7 174
High schools			
High schools	338	21 859	29 910
Senior "	35	610	788
Middle "	61	960	1 205
Junior "	126	1 881	2 332
Special "	2	52	35
Total	562	25 362	34 270
Organizations for home education			
Institutes	2	.....	.....
Libraries	181	.....	.....
Museums	2	.....	.....
Total	185	.....	.....
Affiliated with the University			
Libraries	56	.....	.....
Centers	48	.....	.....
Study clubs	410	.....	.....
Associations	11	.....	.....
Business schools	26
Other	10
Total	561
Grand total	1 563	650 232	651 398

Regents Bulletin

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OF THE

State of New York, 1-3 July 1901

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ALBANY

UNIVERSITY OF THE STATE OF NEW YORK

1901

Regents Bulletin

No. 55 September 1901

39th University Convocation

OF THE

State of New York, 1-3 July 1901

SUMMARY OF SESSIONS

1st session, Monday, 1 July 8 p. m.

Convocation called to order by Vice-Chanc. WILLIAM CROSWELL

DOANE

Prayer by Regent ORRIS H. WARREN

Short addresses

Vice-Chanc. WILLIAM CROSWELL DOANE

Regent CHESTER S. LORD

Regent ST CLAIR McKELWAY

University reception in the library

2d session, Tuesday, 2 July 9.30 a. m.

Vice-Chanc. DOANE presiding

Present tendencies in secondary education

Prof. ELMER ELLSWORTH BROWN, University of California

Special addresses

Prin. A. S. DOWNING, New York training school for teachers

Prof. GEORGE H. LOCKE, University of Chicago, editor *School review*

Supervisor CHARLES H. KEYES, South district public schools
Hartford Ct.

Formal discussion

Sup't CHARLES B. GILBERT, Rochester

Prin. FRED VAN DUSEN, Ogdensburg free academy

Prin. JAMES WINNE, Poughkeepsie high school

General discussion

Prin. JOSEPH E. KING, Fort Edward collegiate institute

Prin. JOSEPH E. BANTA, Binghamton high school

Adjourned 12.30 p. m.

3d session, Tuesday, 2 July 3 p. m.

Vice-Chanc. DOANE presiding

Present tendencies in higher education

Pres. G. STANLEY HALL, Clark university

Special addresses

Dr C. H. THURBER, Boston Mass.

Pres. RUSH RHEES, University of Rochester

- Dr A. E. WINSHIP, editor *Journal of education*, Boston

Formal discussion

Pres. ANDREW V. V. RAYMOND, Union university

Prin. WALTER B. GUNNISON, Erasmus Hall high school,
Brooklyn

General discussion

Prin. DANIEL C. FARR, Glens Falls academy

Vice-Chanc. DOANE

4th session, Tuesday, 2 July 8 p. m.

Vice-Chanc. DOANE presiding

The contribution of our higher schools to the life of the nation :
annual address

Pres. WILLIAM H. P. FAUNCE, Brown university

5th session, 3 July 9.30 a. m.

Regent PLINY T. SEXTON presiding

Present tendencies in technical and professional education

Technical, commercial and industrial education

Dean JOHN B. JOHNSON, College of mechanics and engineering, University of Wisconsin

Trend of progress in professional education

Prof. ROBERT H. THURSTON, Sibley college of mechanical engineering and mechanic arts, Cornell university

Special addresses

Pres. GEORGE B. STEWART, Auburn theological seminary

Dr BAYARD HOLMES, secretary of American association of medical colleges

Dean JAMES B. SCOTT, College of law, University of Illinois

Formal discussion

Deputy Sup't HOWARD J. ROGERS, department of public instruction

Prin. PERCY I. BUGBEE, Oneonta normal school

Closing remarks

Regent SEXTON

Adjourned 12.45 p. m.

SUMMARY OF ACTION

Monday evening, 1 July

Chancellor's absence. On motion of Prin. H. P. Warren, it was voted that the convocation send to the chancellor its greeting, with an expression of its regret at his absence. Sec. Parsons expressed the gratification of all that the vice-chancellor was able to be present again this year.

APPOINTMENTS

Convocation council. By appointment of Dean James E. Russell to succeed Chanc. James R. Day, the council for 1902 is:

- 1902 Sup't John Kennedy, Batavia.
- 1903 Prin. Thomas O. Baker, Brooklyn public school.
- 1904 Prin. Floyd J. Bartlett, Auburn high school.
- 1905 Prin. Myron T. Scudder, New Paltz normal school.
- 1906 Dean James E. Russell, Teachers college, Columbia university, New York.

College council. By appointment of Pres. Rush Rhees to succeed Pres. J. G. Schurman, the council for 1902 is:

- 1902 Pres. J. M. Taylor D.D. LL.D. Vassar college.
- 1903 Dean Nicholas Murray Butler Ph.D. Columbia university.
- 1904 Pres. R. E. Jones B.A. S.T.D. Hobart college.
- 1905 Pres. George E. Merrill D.D. Colgate university.
- 1906 Pres. Rush Rhees LL.D. University of Rochester.

Academic council. By appointment of Prin. C. H. Warfield to succeed Prin. D. C. Farr, the council for 1902 is:

- 1902 Prin. Byron G. Clapp, Fulton high school.
- 1903 Prin. O. D. Robinson, Albany high school.
- 1904 Prin. J. F. Glavin, St John's academy, Rensselaer.
- 1905 Prin. James Winne, Poughkeepsie.
- 1906 Prin. C. H. Warfield, Little Falls high school.

Library council. By appointment of H. L. Elmendorf to succeed J. N. Larned, the council of 1902 is:

- 1902 J. S. Billings M.D. director New York public library.
- 1903 John E. Brandegge, trustee Utica public library.
- 1904 M. Emogene Hazeltine, librarian James Prendergast library, Jamestown.
- 1905 James H. Canfield LL.D. librarian Columbia university.
- 1906 H. L. Elmendorf, Buffalo public library.

Medical council. The medical council appointed in March for 1902 is:

Joseph H. Raymond M.D.

Egbert Le Fevre M.D.

H. M. Dearborn M.D.

1904 Willis G. Tucker Ph.D. M.D.

1906 William Gilman Thompson.

Dental council. The dental council for 1902 is:

Faneuil D. Weisse M.D.

Charles Milton Ford M.D.

William C. Barrett D.D.S.

Veterinary council. The veterinary council for 1902 is:

James Law F.R. C.V.S.

Alexander F. Liautard M.D. V.M.

ADDRESSES, PAPERS AND DISCUSSIONS

Monday evening, 1 July

OPENING PRAYER

BY REGENT ORRIS H. WARREN

Our Father, who art in heaven, as we enter on the duties and privileges of this hour, we would stop a moment and turn our thoughts toward Thee and call upon Thy name. We remember with gratitude all Thy blessings, but specially the providence which has brought us together again in our annual convocation. We would remember the blessings of the past year in our various fields of labor, in the various relations which we have sustained and amid the manifold duties which have devolved on us. We would reflect that in these duties we have not been permitted to follow merely our own thoughts and our own ways; we have been surrounded as it were by Thee and Thy great goodness, and Thy great wisdom has often corrected our mistakes. When we have looked to Thee for guidance, we have found Thee to be our present help. When we reflect on our labors and our responsibilities and the rewards which have

come to us in our various spheres, we are reminded that we are not our own, that we have been purchased with a price; and that we who have been privileged to call ourselves teachers, with tender and growing minds committed to our care, have not been commissioned to handle that material in the light of our own judgments. Thou hast given us these minds to cultivate, these spirits to impress, these obligations to discharge. Forgive us, O Lord, if in any respects we have forgotten them.

And we pray for Thy blessing to rest on us in this assemblage and in the duties which are before us. May we be thoughtful, may we be sincere, may we be earnest, may we remember that we are responsible often even for what we think. Thou dost not permit us to stand in our own individual light and let our little thoughts and our little aspirations be our guide. Thou dost ask us to stand in the light of God and His truth. We therefore pray that Thou wilt give us not only for this occasion, but for the duties which are before us in our vocations, the spirit of truth, the spirit that leadeth into all truth, the spirit that doth testify of Thee, the spirit that doth glorify Thee, and the spirit that maketh intercession for us. May we have that large apprehension of truth, that appreciation of truth, in its relation to us individually and in its relation to the well-being of society and the world, which will lead us to high aspirations and earnest efforts and bring us out to the best and highest results. Hear us in these things, through the merit of Christ, our Redeemer. Amen.

Short addresses

Vice-Chanc. William Crosswell Doane—It is both a privilege and a pleasure to preside over the meetings of this distinguished body, even by the accident of circumstance, though I most deeply regret the circumstance because of which this duty devolves on me. I am not proposing to fill the chancellor's place,

but only by my presence here to emphasize its emptiness, and I am quite sure the University convocation will authorize me to send their greetings and regards to the chancellor, kept away, I am glad to believe, rather from motives of prudence than from any serious inability.

And so, members of the convocation, in behalf of the regents of the University, I bid you welcome to the deliberations and discussions of this 39th University convocation. The convocation as an institution was conceived and born in the mind and heart of one of the chancellors, than whom no one ever gave more generous and devoted service to the University—Chanc. Pruyn. It has vindicated its value, not only by the character of its debates and by the number of distinguished men whom it attracts to its sessions, but by the fact that other educational bodies have organized similar gatherings after its example. Its purpose is the freest discussion of all matters bearing on questions of secondary and higher education. And, while assigned topics and selected speakers are arranged for, there are both room and welcome for all to speak who will.

Desiring to make room for the appointed speakers of the evening, I merely want to say a word or two on two points. First, I think I may with very real satisfaction assure the gathered teachers here, that the last year's record of the University is full of encouragement. Whether we look at the work accomplished, not merely in the office, but in the academies and the schools, or at the relation established between the University and the executive and legislative departments of the state, the outlook is full of cheer. Exact economy of administration in the office has been met by generous recognition from the legislature and the governor. Appropriations have been made liberally, in response to reductions which have been offered readily; and for the coming year the University is well fitted and furnished for its work. Under the wise and unwithheld devotion of the secretary, this difficult combination has been effected, namely a largely reduced expenditure and a largely increased amount of work.

Secondly, I am bound to say from one or two specimen results which I have seen myself, that I believe the inspectors' reports of advance and improvement in our institutions are abundantly sustained. It has been my good fortune to come into contact somewhat closely this year with two of our schools, at Rouse Point and at Walton. I gave the diplomas and a regents certificate one very hot night last week, to the graduates at Rouse Point, and I was more than gratified with the literary touch and tone of the exercises. And I found a record at Walton which struck me as so remarkable that I got from the principal a correct statement of the facts. Of five college graduates prepared in the Walton high school, three from Princeton, one from Amherst and one from Monmouth, two were honor men, one was appointed instructor in Latin at Princeton for the coming year and received \$500 from the university funds appropriated for traveling. Of 28 undergraduates, five at Cornell hold state scholarships, and one a university scholarship in addition to the state scholarship.

This from the high school at Walton. And this is the text of the very brief word I want to say tonight. I have no sympathy with what seems to me the irrational sentimentalism of the idea, that every boy and girl has the right to a liberal education at the expense of the state. And I as absolutely detest the exclusive selfishness which would shut out from the best possible education all children, except those whose parents can pay their bills. I think that even in the three accepted instances of "life, liberty and the pursuit of happiness," the word "rights" needs a little qualifying; because the liberty must not be at the expense of other people's freedom, the happiness must be after some better standard than the amusement of the passing hour, the life must be life under law. Outside of these three, many so-called rights are really privileges and always responsibilities; suffrage and education among the rest. The instruction which the state gives in what are called common schools is not so much the right of the child as it is the common sense and duty of the state for self-protection. All be-

yond this is the gracious and generous gift of enlightened municipalities, meant for those who can appreciate it and use it. Hence I believe in the stringency of the regents examinations. It is a waste of time and money to fling the pearl of higher education before the swinish stupidity of the brainless boy, or the sheepish silliness of the frivolous girl, who might better be cultivating the soil than studying geology, and for whom the practice of bookkeeping would be more useful than the study of the higher mathematics. I believe the time is coming when the great lesson of Gen. Armstrong's work at Hampton will be put into practice everywhere, namely the combining of industrial with intellectual training. Some day, if the southern educators go on as they are beginning, they will be setting us an example of the highest and most wholesome education. Meanwhile it seems to me that our principals and teachers will be doing their best service to the state, if, first they will weed out of the institution children plainly indifferent to their opportunities and plainly incapable of improving them; and, secondly, if they will impress on the minds of their students the fact, that they are in honor bound to render some return to the state which educates them, in the service of a loyal, useful and intelligent citizenship.

Regent Chester S. Lord—Looking over some scraps of newspaper verse the other day, I came across a few lines which, with your kind permission, I will read to you.

There was an old woman who always was tired.
She lived in a house where no help was hired.
Her last words on earth were, "Dear friends, I am going
Where sweeping ain't done, nor churning, nor sewing.
And everything there will be just to my wishes,
For where they don't eat, there's no washing of dishes.
And there, though the anthems are constantly ringing,
I, having no voice, will get rid of the singing.
Don't mourn for me now, don't mourn for me never;
I'm going to do nothing forever and ever."

I can imagine this good old soul living up on that sandy strip of highway in the back part of St Lawrence county leading from the railway to Cranberry lake. She probably was what the

natives up there call a good woman to work. I had the pleasure of passing over that road for 17 consecutive summers and I came to know the inhabitants very well. There was one spot where we always used to find Salem Townes. Salem used to keep a store just before you enter the woods; and I remember one day we cried out, "Hello, Salem, what's the news?" Only one thing had happened in the year since last we met; and Salem made haste to reply, "Well, I suppose you heard that George had lost his woman." "What, George has lost his wife! Why, she was a woman of excellent Christian character, was she not?" and Salem replied, "Well, I don't know much about her character, but she was a good woman to work."

We pushed on till we came to Clifton, and there we found Gordon. Gordon kept a little hotel just on the edge of the woods. "Hello, Gordon," we cried, "what's the news?" "Oh, I don't know," was the reply. "I suppose you heard that Olan had married the school teacher." "Well, that's good, she was a very nice girl, was she not?" And Gordon, who had five eligible daughters himself, replied somewhat dubiously, "Well, I don't know. She ain't a very good woman to work."

On we went into the forest; and there we met Silas Cook, a resident of that region. Silas was coming out. "Hello, Silas," we cried, "what's the news at the lake?" "Well, I suppose you heard about Sam's woman. She fell down the steps and broke both of her legs and one of her arms and three of her ribs. It's awful rough on Sam. I don't know what Sam's going to do, she was such a good woman to work."

And so it seemed that the only womanly accomplishment in that country was ability to work; ability to rise at 4 in summer and 6 in winter and make the fires and milk the cows, feed the pigs, get the breakfast, wash the dishes, sweep the floor, make the beds, make bread, make soap, make the garden, make clothes, make haste, always hustling, always hurried, always hindered, always hampered, always hungering for something that she had not cooked herself, while her interesting husband was trying to catch a few trout or shoot a few squirrels, or was occupying the

mossy side of a convenient log waiting for a woodchuck to come out of his hole.

Now, my friends, I am not here to deliver an argument against work, for hard work is a necessity without which success can not be attained. But I do protest with all my soul against the drudgery to which so many of our American women are subjected. The picture which I have drawn is no exaggeration.

The poor woman who, catching a glimpse of Paradise, cried, "Don't mourn for me never; I'm going to do nothing forever and ever," that woman is no myth. She exists in every school district, in every village, in every ward of every city. You all know her, know the uncomplaining woman, overwhelmed with drudgery and routine, whose only distinction is that she is a good woman to work. And what is the remedy? For the greater part of this drudgery the men are responsible, the lazy, good-for-nothing men; and, if we are going to get at the root of her redemption, we will have to begin to educate the other sex. We want more traveling libraries, we want more village libraries, we want more education of every sort, but above all we want a public sentiment that shall teach men and boys to respect and to glorify women; sentiment that shall encourage, uphold and sustain; a sentiment that shall recognize woman as the chief civilizing force the world has ever known. Woman does not want the ballot so much as she wants rest and time to improve herself; and the men should see to it that she has it.

More's the pity that any American woman should be subjected to drudgery or to unnecessary toil, for in her full development under the influence of education and environment the American woman is the finest product of any civilization. Not in any other nation is there ought to compare with her in gentle self-reliance or gracious intelligence or wholesome influence. Now suppose, by way of contrast, that through some good fortune this "good woman to work," instead of finding her way to those barren, unproductive acres, had been led from the common school into the high school or academy and ultimately into the university. Her mind unfolds, her ambition is aroused, she begins to realize the

possibilities of life. She is in contact with the bright minds not only of her own sex but those of the opposite sex. And, once her intellect is stimulated and her ambition aroused, what a splendid creature indeed is the American woman! Take her from the farm, from the village, from the rural district down to the great city, the pulsating heart of American society and life, and accord to her its advantages, and she takes her place with the grace and the dignity of a queen. Like a queen she graces our public assemblies, like a queen she presides over her household, bringing distinction to her husband and enjoyment to her associates. She adapts herself to any social or intellectual condition. So education will do for the American woman what it can not do for any other woman on earth, because no other woman on earth is like her.

More's the pity that every American girl can not be raised to the highest degree of education and refinement. More's the pity that there must always exist on our farms and in our communities the drudgery and the toil that attend ignorance and poverty. The "good woman to work" is largely the victim of circumstances and environment; but what can not be done for her may be done for her daughter, for the girl may be reached through the schools. Why not rob drudgery of some of its repulsiveness by teaching appreciation of the beautiful things of life? Nothing is more stimulating or refining. The one thing that we are taught about heaven is that it is beautiful. The little pupil recognizes this when she brings a blossom to her teacher; she thinks it is beautiful. And so music and pictures and art generally have a refining influence. The instinct to recognize the beautiful exists in almost every woman. So much the more reason why it should be encouraged, for it is a civilizing influence of the highest order.

Finally, let us educate our girls to such a degree of wisdom that they will not take up for life with the first scalawag who comes along in search only of "a good woman to work."

Regent St Clair McKelway—Imperative duties in prohibitive weather have made careful preparation of thoughts—or concen-

tration on a theme—difficult to at least one speaker. Happily “there are others.” I protest that is not slang. It is fact straightforwardly put. Those who think it is slang are confounding it with associations analogous to nothing here. The remark had its rise—notice I do not pronounce it “rice”—in the observation of a policeman who had arrested a whole township of people for the trivial offense of making fun of his new uniform. The magistrate said: “This is a large number who treat you with disrespect.” Whereupon the officer replied: “Yes, and there are others, and I have my eye on ’em.”

That use of the term was meant to imply similarity and equality of turpitude. My use of it is meant to imply a desirable differentiation of conditions: I am unprepared. “There are others”—who are prepared. Those who accused me of slang were wrong. They owe to me an apology. Some of them owe to me more than that. If they will settle up, the apology can be let pass.

Moreover, a thing is not barred because it is slang. A distinguished master of English—you will instantly see that he could not be a professor of English—finely said once: “Slang is the straightest avenue to the human heart.” That is not necessarily a shocking idea, but it so shocked three purists, four pedants, two “elocutionists,” and five “educators,” who had been insulted had they been called teachers, that they nearly fainted. They could not entirely faint, for they didn’t have enough blood to rush to the head, owing to the weakness of that “anatomical superfluity” which Fitz James O’Brien defines the heart to be. There are compensations even in deprivations. To those who can not occasionally enjoy slang, is denied—for reasons already given—the ability to faint, and for equally obvious reasons they will never die of brain fever. The organs are necessary to have them amenable to disease. To be incapacitated, one must have capacity as a starter. Happily “there are others”—who unlike me are prepared. They have come up here to talk on the outlook on secondary schools, on colleges, on universities and on technical schools. And one of them will talk on

the place of educated men in affairs, which is too often behind the door. This is to be a convocation of "outlooks." Outlook is a term of prospection. I do not know whether there is such a word. There ought to be. So I have made it. But as outlook is a term of prospection, so is "look out" a term of warning and apprehension. Therefore I say to you, look out for outlooks at this convocation. I predict that every prepared speaker will have his outlook in fine form. The only error he will see will be in some other fellow's outlook. The outlook on his own field will be all right—or it would be if the outlook on some other field were not wrong.

There will be nothing the matter with the colleges except the monopolizing tendency of the universities. There will be nothing the matter with the universities except the indefensible persistence of the small colleges. There will be something the matter with both of them owing to the unjustifiable vitality of the technical or polytechnic schools. And the only trouble with those schools will be found in the perverse prosperity of classical institutions. Thus the native hue of resolution in the case of each outlook will be sicklied o'er with the pale cast of thought of the defects in every other outlook.

I do not hesitate to assert that, if any disparity between this prognosis and the propositions of any outlooker is found, the fact will be due to his wise alteration of tone and terms, after having heard what I have to say. Prophecy is sometimes educationally preventive. If I can head off the errors my friends have come here "prepared" to make, if I can head them off by merely predicting that they will make them, I shall rejoice in their real reform and in my apparent refutation. Some think that this grand old world has refused to come to an end, just to spite the second adventists who have so often and so confidently set a date for it to do so. The idea is as logical as the well-known eulogy of Judas for having precipitated the atonement. But whether my prophecy is well vindicated by the result or better vindicated by the wise avoidance of the errors I would preventively predict, I wish to say, and like Mark Meddle, I wish to

say it boldly, that the outlooks are all right, and that they are specially right because the look outs or the outlookers do not—or may not—agree with one another. There is something morally and mentally better than agreement. It is disagreement. There is something better than unity. It is diversity. There is something better than harmony. It is rivalry. There is something better than one party. It is two parties. And three or four or five are better than two. We want the advocate of the small college to fight for his hand. We want the champion of the university to fight for his hand. We want the orator or the essayist for the technical schools to fight for his hand. The sweetheart who, when asked by her lover, "Who's the dearest darling in the world?" said "Bofe of us" uttered a great truth, and did not censurably overwork the superlative.

I formerly felt tired when I heard every man maintain that his crow was the whitest; when I heard every educational talker insist that the educational center of the world was right over his farm, because the sky fitted so close all around; when I heard academy men declare that academies were the only things worthy of consideration, for other institutions would take care of themselves; when I was treated to equally exclusive pleas for high schools, colleges, universities and science schools. But I would be glad, should there be a return to that spirit—glad for some reasons at least. The suspension of it led to a policy of quasi trade unionism in education. The kindergarten caught the child as soon after he was born as possible. It willingly relieved and superseded the parents. Then it passed him along to the primary. If the child held to the line of the public system, the grammar and high schools then gripped him and he was thence sent to college and then to some professional school or to some special course in a university. Now this is all right for those who can pursue it. But this is not all right for those who can not pursue it. And the number who can not is far greater than the number who can. Consequently, the excessive working of the graded theory in education was not helpful to those who could not go through all or through many of the grades.

The intending high school pupil or the intending college student received more attention than the one who had to stop earlier in the series, and to go to bread-winning. Teachers felt that they were sending grist to other hoppers, rather than getting the best into and bringing the best out of those compelled to go into the world in the middle period of their youth. Teachers naturally regarded those whom they could send up and on as representatives of their work and exponents and perpetuators of their fame. They called their schools fitting schools—not fitting schools for the work of life, but fitting schools for other schools. The pupil became a sort of ambulatory advertisement, a progressive puff of a seried alignment of teachers and schools. The poor chap who had to stop a little beyond the three “r’s” in order to lend a hand at work to the common and scanty purse of home was likely to get little attention and to become content with even less than he got.

This was a sad result of the disposition to lay too much stress on the organization scheme in learning. The fruits of it have prospered the top at the expense of the bottom. In our great cities, specially in the one from which I come, thousands of children were deprived of room in the primary and in the grammar schools, but the solicitude of political school boards for high schools was only quickened, as it were, thereby. No spectacle more lamentable, more pathetic, more satirical, more monstrous was ever exhibited. The wrongs done in the name of education began to equal those done in the name of liberty. The best efforts of the press and of the citizens outside of educational officialdom and outside of politics were required to scare and to shame government in a reverse direction. The reversal has in part been accomplished. The cry of the innocents has been heard and in part heeded. No provision has been omitted for the higher branches, but more provision has been made for the lower ones. The primaries are now recruiting from the streets. The streets are no longer recruiting so much or so many as they were from the primaries. The fact has been enforced that the higher branches are those that all could and most must do with-

out, while the lower branches are those none can do without. The laurels have not been taken from the one term, but the stigma has been taken from the other.

By coaction rather than by reaction this has made the present year one of marked self-assertion on the part of all branches of learning. The high schools and academies are putting up a stout case. The small colleges have declined the invitation of the big colleges or of the universities to die. The universities are reiterating their claims to large consideration and establishing those claims so far as the multi-millionaires are concerned. There is more individuality among all the institutions. The federation idea among them has declined to a degree. There is a several determination among them at least to try to live. There is a distinct resistance put up to the proposition that, as everything in the world of markets tends to combinations or trusts, so should or so must everything in the world of mind and of character-making fall under the same rule. In the long run the resistance may be only an ineffectual protest, but the protest bids fair to last far into, if not through, the present century, and that will be long enough to be of concern to you and to me. I confess to a warm sympathy with the determination of every one of the grand departments to stand by its colors and to oppose any present program of universal merger. I confess to an admiration for the audacity and feasibility of the idea that the universities prepare to drop their literary and general college features, and transform themselves into professional, special, technical and postgraduate study shops, taking none as students who have not acquired the B.A. degree in general college work; making themselves the clearing houses for the colleges, so to speak. Whether that would eventually lead to the federation, by fellowship, which is now at points sought to be enforced by the process of the extinction of some of the small colleges, I do not know. But it would at least relieve the problem of cooperation and coordination from any necessarily destructive incidents or consequences. It might save some colleges from the temptation or coercion to overwrite themselves universities, and it

might relieve some so-called universities from the coercion or temptation to make their labels an overstatement of their goods.

For that reason, and for others, I hope that fire will flash and fur fly in the outlooks which are to be denoted and declared at this convocation. Better optimism always than pessimism. But optimism as a working factor can hardly be had without a degree of honest and healthy egotism. Optimism is belief in the forward movement of the world. Belief in it involves putting your shoulder to the wheel. Putting it to the wheel calls for belief in your shoulder as well as in the wheel, in yourself, in your work, in your methods, in your convictions, as well as in the cause. The, sane, cultivated and gentlemanly mind can always discriminate between hopefulness and horn-blowing; between vigor and vanity; between confidence and braggadocio; between faith and froth; between patriotism and jingoism. Hence, we the regents, in welcoming the representatives of learning to this historic seat of power, adjure you to have confidence in your views and in yourselves; to say your say boldly, confidently and unreservedly. You will none of you be all right or all wrong. The right will be the resultant of the views of you all, net. The wrong will be the error of any of you who supposes that he knows it all, or that he has a panacea for all the ills the body educational is heir to. If any of you fall into that error, it will be pardoned to the exuberance of vigor or of verbosity and your opponents will correct the excess. So as Percival, round whom space cleared as it always clears round a great man, said to a young friend, "Do not be afraid to risk yourself." None of our vocations is the highest in the world, but we are lame ducks in our several work, if we do not think it is. We are not fully equipped for our several work, if we would not rather fail in it than succeed in any other. Enthusiasm is not only the secret of power, but it is the secret even of proficiency from start to finish. The unpardonable sin is indifference. Let who can or who will give millions to education—and large honor to them. But larger honor be to those who give more, who give themselves. The labor that is life is the life of labor. The life

that is labor, is the life of life. Both are what is, and what makes, the life which is worth living. Nor should we give too much time to discussion of methods of work, when the work is to our hand, and when the night cometh in which no man can work. A council of war never fought. Discussion of methods within limits is well. Pushed to the degree that subordinates performance to process, it is weakening. It is the refuge and joy of glib and smug mediocrity, the preserve of petty precisions. But the joy of true work, and the joy of the true worker, is in the existence of opportunity and in the consciousness of ability. Opportunity is duty. Ability is responsibility. Nowhere is this so signally the case as in education. For we deal not in corruptible things as in silver or gold, but in hearts and minds that are immortal, whether for good or ill. And the influence of our work on the minds submitted to us will outlast in them and in those after them all the material monuments that beautify and burden the earth. That influence will be regnant for bane or for blessing, when all those monuments shall have resolved to their original elemental dust or have been buried beneath the tides of a new civilization that shall replace and redate the contemporary work of man in the world.

Tuesday morning, 2 July

PRESENT TENDENCIES IN SECONDARY EDUCATION

BY PROF. ELMER ELLSWORTH BROWN, UNIVERSITY OF CALIFORNIA

The keynote of current educational thought seems to have been sounded by Prof. John Dewey in his saying that, "The school is not preparation for life: it is life." Education is to provide for the future needs of pupils by providing for their real present needs. One of the most notable and comprehensive tendencies of secondary education, and of all education, is accordingly the tendency to seek an understanding of the living, growing persons

who go to school; and to treat them in a way to promote their healthy growth. This doctrine is sound at bottom. Persons are the most precious things in this life; and child persons as precious as persons fully matured. In this view we have true humanism. It is a view that makes the school interesting. It is moral; for what is morality after all but fulness of personal life? It is religious too. "The knowledge of ourselves," said John Calvin, "is not only an incitement to seek after God, but likewise a considerable assistance toward finding Him."

On the one side, such doctrine as this is leading us into individualism. It prompts the demand for free election of studies in the secondary school; for individualized processes of instruction. On the other side, the study of development has shown how strangely dependent the individual is on his social relationships. We see, in fact, that there is nothing worth the name of human personality that has not arisen under the stress and strain of getting on with one's fellows. So we have come to attach new significance to the mere fact that in a school many young people come together and have varied dealing one with another. We are seeing that social intercourse is not a mere accident of school education but one of the chief things in school education.

We may go farther and say that the school is not only life, it is preparation for life. Just because it is life, it looks forward to larger life. Any life that does not look forward is poor and mean; and we should make a losing bargain if we exchanged the old school that concerned itself only with the future for a new school which concerned itself only with the present. So our secondary education looks forward to the citizenship which awaits all of our students, and consciously prepares them for its duties. Whether they are destined for the more extended training of the university or not, it undertakes to direct their attention toward public affairs, well knowing that the time is already come for them to take anticipatory interest in such things. It takes account, too, of the fact that each citizen must have a life work peculiarly his own, in order to discharge his full obligation to the body politic. How secondary education may pay due

regard to this fact and yet avoid the injustice of binding our youth at an early age to a course in life which may not be rightly their own, is one of the hardest problems with which we have to deal.

May I venture to add that our secondary education looks even to life beyond this life; or rather to life above and all about this life. We are finding that the seething adolescence of our academies and high schools is above all skeptical and religious. The two things go together and belong together at this age. Education does not altogether meet the needs of the present life of our youth if it does not verge on the shadowy fields of things too real to be seen.

The more important tendencies of our secondary education seem to lie in the directions I have indicated. Permit me now to call your attention to a more particular consideration of some of the topics already touched on.

1 Some tendencies affecting our courses of study. A recent writer has said that "The time for the finishing school has gone by." With equal truth it may be said that the time for the "fitting school" has gone by. I do not mean by "fitting school" a school for the education of youth who are preparing for college, but rather a school which prepares for college whether it educates or not. The proper business of every school is education. The growing recognition of this fact is one of the most marked of present tendencies. The sharp distinction between preparation for college and "preparation for life" is fading out. We may say, our working hypothesis is that, so far as general culture is concerned, preparation for higher schools, rightly conceived, coincides with preparation for life. I do not extend this principle to secondary schools of a vocational character; and I am not enough of a doctrinaire to accept it as a finality with regard even to schools of general culture. But it has stood examination and trial sufficiently well to warrant us in employing it as a working hypothesis. Taken in conjunction with a second assumption which I will mention later, it will prove very useful in the future organization of our secondary education.

Will you permit a New Yorker who has long been a Californian to say that some of us on the Pacific coast have looked with a certain wonder on the outbreak in the east during the last year or two of the idea of free election of studies. The reported discussions of this subject sound strangely like echoes of our own battles of eight or 10 years ago. The sun has not yet learned to move from west to east. So I can explain this phenomenon only by supposing that Pres. Jordan, in the free field of a new university, was able to precipitate a movement which Pres. Eliot has got under way more gradually in the established order of these older states.

We have not come to doctrinal agreement in California; but we have found a *modus vivendi* and have settled down to the detailed consideration of the question where between the two extremes, of the fixed course and the course with nothing fixed, the highest educational efficiency is to be found. This is the question for real school men in real schools to consider. One of the first things that appear from this sort of study is the fact that English is an indispensable subject in any curriculum. This is admitted by nearly every one, even when it is not admitted that any other study is indispensable. English has taken the fixed place of Latin in the old curriculum. If other single subjects are not essential, we are coming to think that an outlook into certain other broad fields of study is necessary. The committee of 10 led the way in pointing out this need, and the later committee on college entrance requirements has formulated a general plan under which the need may be met. All students must be introduced to the same civilization, and, since all are human, their several ways of approaching it will not be fundamentally different. What seems still more significant is this: even if it be true that what is best for one student is a little different from what is best for another, the fact remains that each student needs for his own purposes a well organized unitary curriculum. I fear we are tending toward miscellaneous election from a miscellaneous mass of offered courses; but there is a deeper tendency, which will surely become dominant—a tendency toward

organic election from what is offered, no matter how miscellaneous that may be; a different curriculum for each student, if you will, but a real curriculum.

The recent history of studies is significant. It appears from the reports of the commissioner of education that between the years 1894 and 1899 the percentage of pupils in our secondary schools studying Latin, French, German, algebra, geometry, physical geography, physiology, rhetoric, and general history was on the increase, the advance being specially marked in the case of Latin, algebra, geometry, rhetoric, and history. In the same period, the percentage of those studying Greek, trigonometry, astronomy, physics, geology, and psychology, declined. For a part of the studies, a report is presented covering 10 years, from 1889 to 1899. In that time the percentage studying Latin had advanced from 33.62 to 50.29, and the advance in algebra, geometry, and general history, though less marked, was very noteworthy. In these years the actual number of students attending our secondary schools had increased from a little less than 298,000 to a little more than 580,000.

It would seem that in spite of this enormous increase in attendance, the schools had been gravitating back toward concentration on a smaller number of studies, and those chiefly the central studies of the old humanistic curriculum, with the omission of Greek. While Greek seems to have declined proportionately, the falling off is very slight; and the actual increase in the number of students studying that glorious old language was not far from 12,000. It is likely that physics, which shows the greatest retrogression in the 10 year period, had made greater advance than most of the other subjects in methods of presentation. I think it probable that the percentage of students studying physics by laboratory methods, if it could be determined, would show a substantial increase.

On the whole, then, we may safely conclude that in their actual working our secondary schools, at the same time that they are increasing enormously in attendance, are becoming more conservative in their schemes of instruction, are less given to what

have been called "short information courses," are more humanistic, and on the scientific side are doing more in the direction of an improvement of instruction than in that of the extension of studies.

We may note in passing that in the same period, despite the tremendous increase in attendance at higher institutions, the number of students in our secondary schools who were not preparing for college increased more rapidly than those who were. 18.66% were preparing for college in 1889-90; 14.05% in 1898-99.

2 There are many reasons why the question of teachers is more important than the question of studies. And the conviction is now well grounded that teachers of secondary schools as well as teachers of primary schools must be specially trained for their work. 20 years ago this was not true. We may be modest in making claims with regard to the professional training toward which the teaching craft of our secondary schools is tending. But many signs show that the tendency is well under way; and, with all of its present inadequacy, the training offered is working gradually toward stability, solidity, and effectiveness.

Yet, after all this is said, the discovery of teachers is as important as the making of teachers. The fact that so much of the real teacher quality is inborn, gives emphasis to this view. In part, this discovery of teachers may be the work of colleges and training schools. In part it is the work of superintendents and principals. But, in a larger sense, it is a result of a favorable organization of the whole set of conditions and associations which surround the teacher's calling. We look for real life, and life at its soundest and best, in these secondary schools. To have it, it is necessary that young men and women who represent our American life at its soundest and best, shall be drawn into teaching positions in these schools; and that those who show special aptitude for such work shall find good inducements to stay in it. Such inducements are, the opportunity to do their work to good advantage; reasonably good salaries; and such social standing as will encourage self-respect on their part and on the part of their families. It is plain that these inducements are to be pro-

vided partly by the action of boards of education and partly by the general attitude of the communities back of those boards. The real discoverer is the community, acting under such leadership as it may choose.

But there are other agencies at work. Whatever is done to render education more professional, tends to draw toward it men who have professional tastes. In this point of view, the teaching body is the discoverer. Excellence in the profession tends to attract and discover excellence; and by cherishing most religiously the standing of our profession we make it more worthy to be cherished.

Again, every advance in the scientific, historical or philosophical treatment of education tends to draw to it persons of intellectual taste and ability. In recent years we have seen men turning to education because of the marked improvement of our pedagogic literature. Then, the knitting together of the interests of our secondary schools and universities works in the same direction. In some parts of the country, the teacher in a high school finds himself, in a way, brought into the life of the universities. The influence of such a relation is not to be disregarded.

Yet the chief responsibility comes back to boards of control and the communities to which the teachers minister. We can not urge too strongly on them the necessity that they discover superior teachers for their secondary schools, by making the teaching positions in those schools such as superior men can accept and hold without loss of self-respect. Within the last few years, we have repeatedly seen first-class men throwing up high school positions in disgust at the petty politics with which those positions were beset, or in despair of being able to provide for their families with the salaries which those positions offered. Such a state of affairs is deadening.

It is difficult to say conclusively whether the general movement of the time is forward or backward in these particulars; but it is my profound conviction that on the whole we are improving. There are many indications that the standard of pre-

paration for secondary school positions is rapidly advancing. Partly as cause and partly as effect of this change, the general standing of secondary school teachers in the community seems to be rising. A rapid increase in the number of college graduates seeking high school positions may prevent salaries from rising proportionately with other forms of public recognition, but I do not think we need fear the ultimate outcome of this condition.

Within the universities, there is observable a growing sentiment in favor of requiring a minimum amount of graduate work of students who are to be recommended as teachers in secondary schools. It has been suggested that this may lead in time to the recognition of the master's degree as the standard teaching degree. For many reasons, this notion seems worthy of serious consideration.

Speaking broadly, the doctrine that the school is real life may be expected to work to the advantage of teachers and teaching. It puts the school into closer touch with the home, and carries into the school the better standards of the community. The growth of wealth and the sharpening of social distinctions may in some measure negative this tendency; but in other ways it will be reinforced by those very conditions. It is not too much to expect that the new century will see a new generation of great school men. If there has been no Thomas Arnold nor Edward Thring in our American schools, we have had many excellent teachers, from Ezekiel Cheever down. Let our best men find encouragement and recognition, both public and fraternal, awaiting them within the teaching profession, as other men have found in other professions; and our teachers of world greatness will in due time appear.

3 Many are looking with favor on private secondary schools because they are believed to be more free than public schools to make useful experiments; because they can devote more attention to the individual peculiarities of their students; and specially because they may be expected to give definite religious instruction. It might be of value to make comparison between public and private schools in these particulars; and I have even

attempted some such comparison. But that must be omitted for lack of time.

It seems that the demand which is growing into some sort of dominance in the concerns of private and public schools alike, is that their teaching shall strike the note of reality—that it shall find the real pupil and give him instruction that he can lay hold of without pretense and without precocity. Red blood is going to school; and the school is interested in the things that send red blood bounding to young muscles and young brains. And what will be the result to American scholarship? I think it will be this: that teachers who also have red blood will make more strenuous demand for real scholarship, and will get it. The necessity of improvement at this point is urgent and should not be discounted. But one word is to be added. We must be willing to stop short of the highest scholarship in our American schools wherever we find that that last finish of scholarly excellence costs never so little of the real vigor of American life. The life is more even than scholarship.

We have been considering thus far the secondary school in the light of the doctrine that the school is life. It has necessarily been a hasty view. Some of the most significant and far reaching consequences of that doctrine have not been touched. But we hasten on to another view, which has been foreshadowed, and is not altogether another. Our adolescent student is continually reaching out after larger conceptions of duty and opportunity. With him, one wave of subjective egoism is succeeded by a wave of devotion to larger human interests. He may be as much an egoist as ever when he contemplates the glory of self-sacrifice for the good of one's fellow men, but his egoism is then finding its own corrective. In like manner, we turn now to the broad question of the relation of secondary education to public interests, but with no sense of breaking with the doctrine we have been considering.

One of the most notable of recent writers on the subject of secondary education is the French sociologist and philosopher, Alfred Fouillée. Within the last two years, he has made im-

portant contributions to the current discussion of the reform of secondary education in France. But his general position was set forth with great clearness, 10 years ago, in his book entitled *Education from a national standpoint*. This work deals, you will remember, with the schools of France. We need a full discussion of American education from the national standpoint, or rather, from the public standpoint, which includes the national. Doubtless some one will give us such a work in due time. But in this latter half of my paper, I wish to point out some current tendencies as seen from the standpoint of public interests.

The spirit of democracy is abroad in modern societies, whatever their form of government. Rightly understood, it is one of the choicest possessions of our modern civilization. So one of the most searching tests of any educational tendency is its bearing on essential democracy. By essential democracy, I understand the spirit which values men according to their manhood. It is the spirit which judges of men on the ground of inherent worth, and not on the ground of such fortuitous attributes as birth or wealth or mere reputation. Democracy surely recognizes differences among men. It sees that some must lead and some must follow. Its peculiarity is that it seeks by all means to devolve leadership on him who is fittest to lead. More than this, true democracy recognizes in men a diversity of gifts, such that each man is destined to lead in some things and to follow in others, to lead in some relations in life and to follow in other relations. That is, to lead wisely and to follow wisely are the correlated duties of every man in a democratic society. Democracy in the long run puts the highest price on preeminence in each of the several walks of life. It puts a price on preeminence of every sort, and teaches every man to respect the different capacities of other men. The question, then, to put to our institutions of secondary education is this, Do they help every student to find himself and his fellow men? For a portion of its students, secondary education may share this responsibility with the education of the higher schools. But the responsibility falls on the secondary school in a peculiar way, for the reason that this grade of

instruction deals with a stage of development in which the student is for the first time, as it were, in possession of his complete equipment of instincts, powers, and passions, and is, accordingly, for the first time fairly face to face with his destiny.

Now let us attempt to trace some bearings of this view on current tendencies in our secondary education.

1 What are the secondary schools doing, and what can they do, to maintain and advance the spirit of true democracy? I do not see that this question has much to do with the question of social "sets" and all that sort of thing. It is rather a question whether the youth in our schools are learning to value human worth for what it is, and not for what it has; and are learning that they are responsible, each for a social service peculiarly his own. Diversity of education is not necessarily a bar to such instruction; but every sort of educational snobbishness is its deadly enemy.

The public high school has long been regarded as one of the bulwarks of our democracy. But with the great increase of wealth in recent years there has grown up a new and very strong demand for private schools. Some of the grounds of such a demand have been previously mentioned. The growth of private fortunes has simply made it possible for a large number of families to follow their own preferences in this matter. But this is not all. There has been another ground for this demand, and that has been the desire for social exclusiveness. It was to be expected that schools would be opened which would meet these several requirements; and not a few of those which have come into existence are such as would satisfy fastidious tastes in their material equipment and the general excellence of their management.

With these well known facts in mind, it is a surprise to learn from the statistics compiled by the bureau of education that this new movement toward private education has not yet begun to compete in any marked degree with the public high school movement. Up to the '80's of the 19th century, less than half of the secondary school students in the United States were in pub-

we might save many misfits in life, without running into those endless term to term readjustments which only render a course of instruction jerky and generally hysteric. It is something like this that the Germans are trying to do under the Frankfort plan; only that plan provides for three year periods instead of two. The fact that this tendency is international emphasizes its importance. It is, in truth, the current form of the demand that secondary education shall help the student to find himself. The demand has come from the psychologic side of education. It comes now from the national side.

Such a system as this could be made much more effective in a six year or an eight year high school than in our ordinary four year schools. The tendency toward an extension of the secondary course upward and downward can barely be referred to here for lack of time. It is as yet more a tendency of thought than of practice. Yet we see some signs of its finding its way down to the ground. It seems not unlikely that we shall have, side by side with our present system, numerous experiments with secondary schools which take in the last year or two of the present elementary course, and with the same or other schools so organized as to cover the first two years of the present college course. It is very desirable that such experiments be made. In the making of such experiments, it would seem possible for private schools to render one important service to our secondary education. And we can be content to let the matter work itself out under the wisdom taught by experience.

But there is another tendency of large significance, which has to do with the effort to find for every citizen his place of most effective service. I refer to the movement which is giving us vocational schools of secondary grade. We seem to be coming to a more general and insistent demand that men shall have training for their work in life. Since the breaking down of the old order of trade guilds and apprenticeship, the need of regular training has long been obscured. Training of the highest sort is now provided in the professions, particularly

in medicine. Teaching still lags in this respect, but is trying to catch up. The several forms of engineering are already firmly placed on the platform of technical training. As regards the trades, progress has been slow, but progress has surely been making. The idea of specific training has reappeared, but in a different world from that of the trade guilds, with their system of apprenticeship. It is a world of schools. When this age undertakes to rebuild the old, medieval idea that each man shall be master of his own craft, it will do it through a system of trade schools. In fact, this seems to be what we are coming to: a view of public education which plans to make the schooling of every pupil culminate in training for some occupation in life. We shall say to our youth, "You have left school before school is out if you have not learned in school to do your daily work." This tendency is already on us, and it seems reasonable to believe that the enormous expansion of high school attendance in this country of late, with the attendant effort of the schools to meet the needs of all, is in part a gathering up of the forces of our American youth preparatory to a more general mastery of the daily business of life.

The growth of secondary schools of a technical and commercial sort is bringing with it a new set of problems. We must not stop to consider them here. Within the next few years their discussion will very likely fill a large place on the program of your annual convocation.

Two principles I have tried to set forth which I should like now to recapitulate side by side. First, the general culture of secondary grade, which is needed for life, is practically identical with that which best fits for the higher education. Secondly, the final stage in the schooling of every individual should not be of the nature of general culture, but it should be instead a direct preparation for a particular vocation in life. I take it that these are two of the principles which will influence our secondary education within the next few years. Neither of them can be accepted as a finality. They are working hypotheses, subject to correction as we go along.

3 Our secondary education, then, is meeting a public need in the promotion of real democracy, and in helping individuals to find their field of most effective service. In the third place, it is meeting a public need, in the largest sense, by promoting a wholesome civic spirit. Those who are experimenting with schemes for self-government in high schools are aiming, among other things, to create an intelligent interest in municipal affairs. The study of American history and civil government is taking a larger place in the high school curriculum. The neglect of these subjects in the past has been one of the most striking anomalies in our courses of instruction. American literature is also receiving ample attention in both elementary and secondary schools.

The emphasis thus laid on the national spirit in our schools is not peculiar to this country. It is characteristic of our time. The tendency which it represents calls for strong approval. I trust I shall not be misunderstood, when I add that local or even national spirit can not be regarded as the final and absolute end of our education. We have been living in an age when nationality is seen as the ultimate object of patriotism; but that age is passing. The strenuous effort of the German emperor to make the German gymnasium more intensely national is only one indication of this fact. It can hardly be doubted that we are moving toward a time when our country will be the world, and patriotism will mean devotion to the interests of mankind. The growing importance of international law, the advance of international cooperation, the gradual unification of the ideals of civilization, and a hundred other indications point in this direction. It is no utopian view that I would present. The progress I speak of is slow, but it has been mightily accelerated within the memory of living men. The time to live and die for one's country is not past, and it will not pass in our day; but, just as surely as in times gone by, the voice of patriotism has called men to fight for their nation as opposed to a rebellious section, just so surely a time will come when the voice of patriotism will call on men to fight for humanity as opposed to any nation that rebels against the general interests of humanity.

So the tendency of our secondary education which will in the end promote the truest patriotism is the tendency to look to the highest good of all mankind. This is only another way of saying that, as our schools grow more national, they should also grow more truly humanistic. The older humanism was devotion to an ideal, to be sure, but an abstract ideal. The newer humanism of the schools can not well dispense with the best that the older humanism had to offer; but it will cease to be abstract. It will call forth a spirit of devotion, not to an ideal republic of the past, but to the commonwealth of the present and the greater commonwealth of the future.

The youth in our secondary schools are ready to be swayed toward either sordid selfishness or the most generous self-devotion. The best that the schools can do to guard them against self-centered commercialism, is to awaken their enthusiasm for some ideal good, which has power of appeal to their imagination. Literature and history can make such appeal, by awakening the sentiment of patriotism. And they will make this appeal at its best when they give our youth some glimpses of the larger patriotism, the universal good, which we hope to see our country serving in the days that are to come, as no nation has served it since the nations began to be. So I look to see humanism as dominant in the schools of the 20th century as it was in those of the 16th; but a new humanism, leaning hard on science, mindful of the past, patriotic in the present, and looking hopefully forward to the larger human interests that have already begun to be.

I am deeply conscious that I have failed to present any adequate treatment of the great theme assigned to me. Many aspects of the subject, which will seem to some of you of paramount importance, I have had to pass without discussion or even without mention. I have tried to lay stress on some of the chief tendencies, already observable, which offer good hope for the future. Broadly speaking, the dominant movements seem to me to appear in the effort to put life, real life, fulness of life into the school; and in the effort to make the school minister in the largest sense to the public good.

The consideration of tendencies in secondary education just now brings us near to the very heart of our civilization. For the past decade, we have seen secondary school problems occupying a central place in the thought of the great culture nations. It has been a decade of secondary school reforms. The great milestones in the progress of those reforms have been the December conference at Berlin in 1890 and the revision of Prussian curricula which followed; the report of our own committee of 10 in 1894; the report of the English parliamentary commission on secondary education in 1895, and the establishment of the English board of education to give effect to recommendations which this commission presented; the report of the committee on college entrance requirements, of our National educational association in 1899; the report, in 1899 and 1900, of the commission appointed by the French chamber of deputies; the Brunswick declaration of 1900, and the other important acts and expressions growing out of the so-called Frankfort plan. It is a most remarkable 10 year record, and warrants the belief that we have just been passing through one of the greatest formative epochs in the history of secondary schools. In America it has been, not a time of crisis, as in the nations of Europe, but rather a time of unparalleled progress. In 1888-89, one third of 1% of our population was enrolled in our secondary schools; in 1898-99, nearly four fifths of 1% was so enrolled, and in 18 states this proportion was more than 1%. If the figures at hand are correct, this is by far the largest proportion of any great people to be found pursuing studies of this grade, Prussia showing a little less than one half of 1%, and France a trifle less than Prussia.

It is the public high schools that have done it. Their attendance increased, in the period named, nearly 214%, while all other secondary schools gained less than 9%. It is evident that the high school has come to be a highly significant factor in our American life: raising our standard of living; giving currency to higher ideas and ideals; sending great numbers of our young people on to the universities and so accentuating in our age the character of a university age; increasing the range of selection

in all occupations calling for the intermediate and higher grades of intelligence; forcing the wider differentiation of our courses of instruction by the very immensity and variety of the demands for instruction which must be satisfied.

It becomes in an important sense the mission of our secondary schools to help our people of all social and industrial grades and classes to understand one another; for they help the schools of all kinds and grades to understand one another. Specially is this true of the public high school, which lays, as it were, its hand directly on both the primary schools and the universities. It is a great thing, this promoting of a good understanding between all classes of citizens. There will be times of crisis when it will be a paramount concern in our national life. We can view with patience even the bungling work occasionally done by politically minded school boards in dealing with our high schools, when we realize that in just this way our demos is working toward an understanding of an institution which in many lands the demos neither tries nor cares to understand. Even through temporary mismanagement of our higher educational institutions our people are coming to understand one another; and through better management they are coming to a better understanding.

It takes wisdom, patience, poise and unbounded good will to discharge the responsibilities of an intermediary position, such as is occupied by our secondary schools. But, if these graces shall be in you and abound, teachers and managers of such schools, you will deserve well of your country; and, even though we be a democracy, we shall not be wholly ungrateful.

Special addresses

Prin. A. S. Downing — I have first to make an apology for Sup't Maxwell, who on Friday afternoon announced that rather unexpectedly he had decided to go to Europe on the 12th of this month, and of necessity it would be impossible for him to be here and yet fulfil all the duties required of him in his position in New York. I knew nothing of the paper, comparatively, and he informed me that I might say whatever I pleased and he would be sponsor for it.

It comes to me, in the work in which I am engaged, to study fairly carefully the tendencies in secondary education, for the reason that the school which is doing its work under my direction takes students who are graduated from secondary schools or schools of higher rank and prepares them to teach in the elementary schools, primary and grammar, of New York city. It behooves us, therefore, to know what is being done in secondary schools and to observe what the tendency is. I have noted three points in the paper on which it seems worth while to concentrate attention for a moment or two, and first I refer to the course of study. No one can be more delighted than I to know from the study made by Prof. Brown that the tendency is once more toward the humanistic studies. During the last few years there has been a tendency to allow students in secondary schools to elect their own studies, and the tendency at first and during several years was to elect the scientific studies, and there came into vogue a method of teaching science which, I think, has had not a little to do with the present tendency toward the old humanistic studies, viz the laboratory method. The laboratory method in a college or university is right without a question. The laboratory method in a secondary school when conducted under an expert is right without a question; but in the hands of a novice, or one who is not an expert, it is a most dangerous method. The result of that method was giving to us students who knew not that they knew anything. They had no positive knowledge or accurate knowledge, and moreover they could not express themselves, could not tell even what they did know in language that was intelligible. I cite one illustration of the effect of the laboratory method which is simply one example of many. A student who graduated from a secondary school, having taken the laboratory method in the biologic sciences, informed the examiner that nitrogen is a gas produced by the oxidation of hydrogen, and, when nitrogen is oxidized, nitrous dioxid is formed, which constitutes a component part of the air and is a poisonous gas that must first be removed from the air before the air is fit to breathe. The student had seen nitrogen manufactured in the school la-

laboratory, and yet informed the examiner that the two components are nitrous dioxid and nitrous oxid, when called upon to tell what nitrogen is, state how it is produced and name two compounds into which nitrogen enters. Now he was an inefficient student, but in this laboratory method students were discovering things that had already been discovered by exact scientists; only a few of the class were discovering them and the rest were being led by the few good students in the class just the same as if they had committed the textbook to memory. This method was not developing in these students the power of close observation and attention, it was not insuring exact knowledge; and I believe that the tendency toward the humanistic studies is due not a little to the fact that the secondary students themselves discovered that the laboratory method in science was not giving them that education, that training which makes men and women. They saw the men and women who were studying Latin and Greek, algebra and geometry taking the first place in their classes; and they themselves, willing to be led again into that which will give them power, are going back to these studies. So the increase in the number pursuing the humanistic studies has been great in the last decade.

The tendency, I believe, today—10 years ago there was a weakening—is to test the knowledge of the secondary student by an examination. The present tendency in secondary schools is to recognize the value of an examination to the student himself. Never mind the question of promotion, never mind the question of graduation, never mind the sending of him to an institution of higher rank; the consideration is the student himself, the training which he is to get out of an examination. It is a tendency with which we may well be satisfied. The student who in early life, in the secondary school even, has been taught to meet a critical examination and to pass it, to meet a crisis and master it, is a better trained boy or a better trained girl than the boy or girl who is certified all through the course from the elementary school on through the college till he or she goes out into life to stand the test which the world puts on him. The

tendency today is to recognize the value of the examination as a part of the discipline which the student must have to fit him for life, whether he will ever go to college or not. In Minnesota and Michigan they certify from the high schools to the universities, and at Ann Arbor a great university has been built up in that way. Every individual high school throughout the state is a feeder to Ann Arbor; and the like is true in Minnesota. But the schools are inspected as carefully as they can be; professors in this institution certify to the value of the work that is being done, not taking simply the certification of the principal or the teacher that the students have done the work, but they themselves investigating it. After all, the men who come to us from Ann Arbor or from Minnesota—some of the best men from those states—have said that it would be better, if it could be done, that the boys and the girls in the secondary schools be required to pass an examination, not for promotion necessarily but for themselves. The tendency is that way; certainly it is in the east.

The third point is the question of teachers. I know there are many in this audience who will not agree with what I say; but the tendency is toward the employment in the secondary schools of only college-bred men and women who have had subsequent training for the work, and I believe that in the very near future there will be no man or woman employed in the secondary schools, that is the best secondary schools, who is not a college graduate with professional training. The normal schools have no business to undertake to train men and women to teach in the secondary schools. Their sole function is to train men and women to teach in the primary and grammar schools. It lies with the college to give to the men and to the women who are to have the training of youth in the secondary schools that broader view of life, that birdseye view of the whole field of learning, because it is an entirely different field from that of elementary school work. You may walk around one of the great blocks in New York and admire the magnificence of the buildings, whether they be dwellings or whether they be business structures, but you have no conception of that block of ground.

Within three weeks men have torn down the old Stewart mansion opposite the Waldorf-Astoria. Many of us have admired that building from the outside and from the inside. As I walked up the avenue the other afternoon and saw that ground, I was sensible that before that I had no conception of the space which the building occupied and the general lay of the ground. If you could go to the top of one of the buildings and look down on this block, this square of houses, you would get some idea of the block; and that is exactly what the college student does and where he has the advantage over the man or the woman who has not been trained in a college. It is not sufficient to walk around the block and admire it; he must have gone to a height above it and looked down, taken a birdseye view of the situation, of the whole field of secondary education, seen the relation of one study to the other, before he is able to teach these boys and girls aright, able to grasp the fact that these boys and these girls are beginning an entirely different kind of learning from that which has been taught in the elementary school. When the boy comes to the secondary school he has a lot of facts at hand. It is the province of the secondary school teacher to give him an entirely new class of facts, facts related one to the other, and the teacher trained for the elementary school can not do it. There is a certain preparation beyond all this. College graduation alone will not answer. I shall have to take issue with the gentleman who said with reference to the selection of teachers that the teacher is born and not made. That is the old saw. My friends, some of them have never been born that are teaching, and some of them have never been made; but you can take a man who has imagination, who has soul, who believes in his fellow man, give him education, give him training, and make a good teacher of him. They need not necessarily, in my judgment, be born teachers. I have had them come into my office and weep and say they could not do it and would not do it, and yet they have done it and they are good teachers today. If they have the soul, and, added to that, have the culture and an insight into knowledge, with training they can teach school. I

believe that the college-bred man or woman must receive a year at least of professional training, paying particular attention to study of the development and growth of child life, and then you will have, in more cases than not, excellent secondary school teachers.

Prof. George H. Locke — You have heard a representative from the far west, a representative from the east. I believe that I am destined to represent the middle west, the states that Mr Downing has just been discussing in his point on examination. I want to say that a great many of us out in the middle west hold nearly the same views as he in regard to examination, and we are hoping that the Association of the Middle states and Maryland, for instance, in its examinations is going to help us gradually in overcoming a certain amount of this certification. I had an example of it only last week. I had a student come up to do a particular work in my department, and she is an exceptionally able person. I judged she had a good deal of culture and of power. She did a good amount of work but could not organize it; and I inquired into her past, what her training had been. It seems that she entered the school system in the middle west from the kindergarten. She went through and took graduate work in the University of Chicago, and she had never passed an examination in all that time. Now that really was a revelation to me, and it showed at once in the work which she was able to do. She had no power of organization, and, when she looked back on her past training, she regretted very much that she had never been required to take an examination. I think these examinations worth considering in connection with this point.

The inevitable in the discussion of such a subject as this is that we shall cross one another's path, that all shall discern some of the signs of the times; and I suppose the thought of the committee who invited us was that we should probably view the tendencies from many different standpoints, and from the symposium there might be obtained a pretty comprehensive

view of secondary education as it is and as it probably will be—for we all shall indulge a little in prophecy.

Prof. Brown has given us in his masterly way the broad, comprehensive outlook, and it remains for me to help fill in some of the details. I have thought it wise, therefore, in the short time allotted me to discuss three tendencies which have come prominently to my notice.

I have a threefold opportunity of looking on the progress of secondary education, first, as professor in the department of education, where in advanced classes we discuss the problems that arise in the organization and administration of this branch of education, both at home and abroad; second, as occasional official visitor of high schools for the university, where I come in contact with the needs of the schools on the one hand and the desires of the community as represented—or sometimes, I regret to say, misrepresented—in the school board on the other; and third, from the editorial chair in which during the last year and a half I have been trying to keep up the traditions of my illustrious chief, Dr Charles H. Thurber, who has done so much for the dissemination of useful literature on the subject. Secondary education owes to him a great debt, a debt which, I am glad to say, everybody is glad to acknowledge.

The first tendency to which I desire to call your attention is from the side of the community, the tendency of the people of a community—an average community—to regard the high school, not as a separate institution whither go the children of the wealthier classes in the onward march to college, but as an integral part of the public school system and therefore a just charge on the public treasury. This, to my mind, is the most hopeful sign of the times, and the tendency is rapidly becoming so pronounced that we shall be able with reason to call it a conviction. By this I do not mean that we should speak of the high school as the people's college, as some educators would have us. I prefer to think that the community should regard it as the division of the public school system known as the last

four grades and not as separate in any way. It is the separation in work and in teachers, this educational segregation, that does so much to hinder us in reaching the great American ideal—the unity of our educational system in every community. The people do not demand equality of education, but they do ask for and provide for equality of opportunity of education; and there are no people who so clearly comprehend what this means to the life and progress of a nation as the people among whom it is our good fortune to labor. This is a tendency on which I might enlarge with profit, but I propose to leave generalities and give you a specific example of a community that ushered in the new century by making this more than a tendency. Out in our state of Illinois there is a small city the name of which is familiar perchance to many here present, though I venture to hope that during the 19th century no one in this assembly visited it for any great length of time. Its fame has hitherto rested mainly on the same basis as that of Sing Sing in your state (though, I believe, there has been a change of name in this regard, but it has not yet appeared in the revised geographies that have reached the *School review*). I allude to Joliet, a city of 30,000 people, with a population of 5000 in the outlying portion making up the township. Within sight of the great penitentiary, a constant reminder of the prevalence of crime, there has just been opened a township high school costing a quarter of a million dollars. It is a stately building, with the most complete laboratories I have seen in any secondary school, far ahead of those of many colleges. There is a magnificent assembly hall with inclined floor, complete stage equipment, gallery, and with seating capacity for 1500 persons. This helps at once to solve one phase of the problem how the high school is to minister to the social needs of the community. This hall is on the ground floor. The school will accommodate 1400 students in school work. The corridor floors and wainscoting are of marble. The building contains 87 rooms, including gymnasium, library, museum, bicycle room, etc. and each room is connected with the principal's office by tele-

phone. Every room has electric light and gas. All demonstrators tables are equipped with electricity, gas, water, steam and compressed air. The lighting is superb, there is not a dark corner, and the heating and ventilating plants are models of excellence. The walls and building proper are those of an architect, the appliances and comforts are those of a thoroughly capable school man. There is much more that I could say of this school, but I think I have said enough to prove my point. I would not have cited this, were it in a large city, but it is in a comparatively small place with a laboring population of mill hands, machinists, etc. Therefore I feel justified in calling this a good example of the tendency of the average American community in the opening years of the new century toward secondary education, when people thus voluntarily tax themselves to provide the opportunities of secondary education for their girls and boys. The example of this one school has already borne fruit in our own and in neighboring states, and the motto of the average American community today is "The best is none too good for our children." Here is a legitimate place for the doctrine of emulation.

The second tendency is like the first, because intimately connected with it. The people give the high school their confidence and hearty material support; then the high school must realize that it exists for the people, not for a particular class, but for all, and therefore the course of study in the school should be as varied as is educationally and economically possible, so that the varied interests of the contributing public may be adequately served. This is popularly known to us as the tendency toward an elective system of studies, and has been well stated by Prof. Hanus of Harvard when he says, "There is a tendency to arrange the subject-matter of instruction in the form of suggestive schedules rather than as mandatory programs; and to permit each pupil, presumably under wise guidance, to select those subjects which are adapted to his wants and tastes."

We have fortunately entered the new century in the belief that courses of study are not of divine revelation, that the hand

that made them was human—very human, and that, if the school is to keep pace with the march of civilization, it must be prepared to equip those who are to be the leaders, equip them with modern weapons and modern tools. We must feel the full force of that verse, "Equip me for the war and teach my hands to fight", as applied to education.

The late war in South Africa has shown us the passing of the big brass general, the waving plumes, the glittering helmets, and breastplates, the conspicuous red coat, the antiquated rifle, and the marching in solid company formation. Time was when soldiers were drawn up in dress parade fashion, tallest on the right and so on, that the effect might be pleasing to the eye. Now a man goes into battle beside the man for whom he has greatest affection, the man beside whom he would like to be in the trying times; he no longer fights by rule but exercises his own judgment, in other words, he develops pluck, which Baden Powell tells us is in its highest form—viz that of the unassisted individual—a man's confidence in himself.

Now, in secondary education this is the demand of the community today for its girls and boys; and surely the high school is going to do its part and take a lesson from the great adjustments that are going on in all other institutions in life. The art of war has undergone a complete change, both by land and sea it has been adapted to modern conditions; and I am confident that secondary education is showing a decided tendency in this country to measure up to the demands of the people and to train the unassisted and producing individual.

Prof. De Garmo has well said that in Germany schools are elected, but in our country courses or subjects. The reason is not far to seek; for before the American boy and girl lies, not a civilization already mapped out in certain subdivisions for certain specifically trained individuals, but a civilization of the widest and freest possibilities. "All things are yours" confronts and encourages the American youth as he steps forward into the great world.

Now, when he goes forth into this great world, with its possible trials and triumphs, the strong desire of the community is that he shall be able to discriminate wisely between those things that are well worth while and those that are less so—in fine, that he shall be educated, for secondary education is above all a training in choice. Therefore he must have an opportunity to acquire in school something more than knowledge. You doubtless remember Kipling's tribute to his schoolmasters:

And we all praise famous men,
Ancients of our college,
For they taught us common sense,
Tried to teach us common sense,
Truth and God's own common sense,
Which is more than knowledge.

It is a trite saying that we learn to do by doing and by knowing, but we do not always apply it so as to say "We learn to choose by choosing." The boy will make some mistakes, but they will be made where there is an opportunity to correct them without great loss, he will learn from his experience (a rare thing in life); and, instead of taking him out of the world, the teachers in our secondary schools are coming to believe that they should aim at keeping him from the evil that is in the world, and to this end are relying more on suggestion and training and less on instruction.

The community demands that girls and boys be able to think and act for themselves, to utilize the knowledge they have and to know how to increase it. The satisfying of this demand, the endeavor to develop each boy to the height of his power for social service, is, I believe, the tendency of secondary education at the opening of this new century; and this shows itself in the flexibility, expansion and vitalization of the course of study in our high schools.

These two tendencies to which I have called your attention are concerned with secondary education as a whole and are indications of the important place it holds and will continue to hold in the life of this nation.

The last in my trio of tendencies is intimately connected with the administration of the high school, and, though it may appear at first sight to be of minor importance, it presents problems which our administrators are finding extremely difficult to solve. I allude to the rapidly widening tendency of the high school to imitate the college. This appears on the intellectual side in flexibility of the courses of study, in elective courses and in elective studies. It appears also in interscholastic declamation and oratoric contests for which very often special expert assistance is procured—specially when the prize offered is a sum of money.

On the social side we see it in the increasing number of fraternities and sororities and clubs or societies of a secret and exclusive nature. Now, I am not here to argue the question as to the benefits or disadvantages that accrue to the life of a college by the existence of these societies. That is an entirely different problem, but I do protest solemnly against any movement that tends to injure in any way the democratic spirit of the high school. This above all other institutions represents democracy and, just at the time when democracy and social equality are beginning to mean something to girls and boys, we ought to be particularly careful of their environment. In the elementary grades they think not of differences in social rank; but just in the adolescent period this feeling makes itself prominent, it comes with the self-conscious development of that period, and we have the opportunity to teach the greatest of lessons to our girls and boys—one that will go far to determine their attitude toward one another through life. If we allow social segregations to be emphasized and encouraged, we are destroying much of the value of our secondary school education. We can't teach or preach democracy to the boy and encourage secret societies which accentuate social distinctions. It may be urged that social distinctions will inevitably show themselves about this period in life. That may be true, but that is no reason why the high school should foster such distinctions. On the contrary, it should ignore

such things and be the great democratic institution of our whole system of education, for in the long run it will have a greater influence in this respect than any other division of education. It has the children at the impressionable age in respect to such questions; and, as for the greater proportion of these children this is the last opportunity for education, the lessons from this teaching will be likely to remain with them.

But, again, this tendency toward imitation is seen in our athletic contests, in football, in baseball, and in track athletics, with the now too familiar "meets" away from home. Trainers are hired for the teams, too often men of the pernicious doctrine, "The end justifies the means" and "All's fair in love and war." This is a degeneration of sport too common in our colleges, and is showing itself more and more in our high schools. The ethics of our athletic contests need purifying, and sport for sport's sake needs to be emphasized. Again, pressure is brought to bear on teacher and on principal to pass John Smith in his work, to give him the grade necessary that he may compete on behalf of the school in the approaching contest. Boys and their trainer talk of the honor of the school and the reputation of the school being at stake—and truly they are, but not in the debased sense intended. There is an exclusiveness even in athletics which takes away the democratic spirit which we have been accustomed to associate with play, and hence most of our boys simply "follow the game." The value of play lies in its spontaneity and democracy, in its inclusiveness and high moral results, all of which ought to characterize the athletics of our high schools.

In the athletic "meets," away from home and necessarily removed more or less from the supervision of the teachers, there is a great temptation to do those things that appear to boys of the adolescent age to be manly—meaning by that those things they have seen men do who to them were "men of the world," different from the people at home. So the young boy who wishes to be smart essays cigarettes or cigars and in a braggadocio manner talks familiarly of beer and other manly perquisites. This

unfortunately is a condition, not a theory, and involves some of the most fundamental principles of education, if, as we believe, our object is the development of high moral character.

Now I shall not enumerate all the minor points that are connected with this tendency, but I hold that we must recognize that this tendency toward imitation really exists; and, when it appears, let us offer to these imitators some aspects of college life that are worth while imitating. The tendency is there, it must be satisfied, and, if we do not offer things worth while, the interest will be developed in a way that will militate against the success of secondary education. The free high school of the United States of America knows no distinctions. It is for all with no requirement except a desire to learn that one may become a good citizen—a contributing and unassisted individual—and it must retain this democracy to be successful. Again, it is an integral part of our public school system and should retain the traditions of that system.

Supervisor Charles H. Keyes—The gentleman preceding me has well said that we who are to discuss the paper of Prof. Brown and the general theme proposed for this session of the convocation, will without doubt frequently cross each other's tracks. I am surprised to note that we are going so nearly in the same general direction. I shall doubtless repeat some of the general propositions already set forth simply because from my point of view they mark leading tendencies in secondary education today.

I believe that the people have not simply adopted the secondary school as their own, but have come to ask the school-master to justify its existence. They have come, to declare in terms quite positive and unmistakable, that no high school has any right to exist, which is not each year accepting and holding an increasingly large number of the boys and girls who have been graduated from the elementary schools. There is a feeling that the test of the true efficiency of the secondary school, other things being equal, is its power to attract and retain in in-

terested, intelligent industry, a large percentage of the pupils prepared by the grammar schools.

One of the speakers last evening suggested that secondary education is not the right of the great mass of the people. Our Illinois friend, William Hawley Smith, insists that it is and ought to be the heritage of all the children of all the people. I feel myself very much more drawn to the latter position than the former. I think the people have come to feel that the high school is the school of every boy and girl graduated from the elementary school, and equipped with sufficient intelligence to desire the opportunity of the secondary school. The high school which loses a large percentage of its pupils at the end of the first or second year of its course or earlier, is failing in its purpose; and it is but a lame excuse to say that the boy must go out to go to work or that his previous training does not seem to have interested him in what the high school is doing. Where these things are true, it is a sad commentary on the success of the high school in filling the place the public demands that it shall occupy.

If there be any truth in the view that the high school is the school of all the people, it means that flexible courses and the elective principle have come to stay. I think we need not dread the possibility of unwise selection of subjects by immature pupils. No high school will leave its pupils free to make unguided selections. The most ardent advocate of elective opportunities in the secondary school acknowledges the need of certain fixed elements or "constants," to adopt the term of the N. E. A. committee on college entrance requirements. Experience in the management of secondary schools in which the elective system is in operation shows that in no single year or term is it ever true that easy courses are singled out by any appreciable number of the pupils. A study of the selections during a number of years by a large number of pupils working under this scheme, shows that such subjects as Latin, French, and mathematics are chosen very much oftener than any alleged

"snap courses." The average high school pupil is not looking for an easy thing. The attitude of the majority of the young people who go to high schools is rather illustrated in a recent interview with a young lad in a large New England high school. I said to him: "Now, my boy, what studies do you desire to take next year?" He had just completed his first year in the high school. "Well, I am going to take Greek for one thing," he said. "Why?" I asked, and he replied, "All the fellows that do things take Greek." I pushed the inquiry a little farther. "What do you mean by 'doing things'?" "Oh, I mean the fellows who are not always getting sick passes or flunking, that do something on the track or field, or lead in the gym." That was his boy idea of doing things. I did not tell him that for other reasons I approved the choice he had made; nor that for such reasons I would have been glad had he taken German or physics or any other subject.

There seems to be a wise tendency to return to a secondary curriculum containing fewer subjects. The demand of the college and the world for better teaching, specially in the natural sciences, is compelling the high schools to choose to do fewer things and do them better. The day is, I believe, not far distant when no teacher who has not had full undergraduate work in college will be permitted to administer the laboratory of the secondary school. When to this equipment is added some practical teaching and testing art, we shall hear fewer suggestions that the science elements are weakening our high school courses.

I am not so hopeful as Dr Brown, however, that we are fast approaching the time when we are to have such training as he has described, and as we must all earnestly desire for the teacher in the secondary school. We in New England feel sure that there is an insistent popular demand that the man or woman who is teaching in the high school shall know well the subjects to be taught. It is now difficult and will be increasingly so for a teacher who has not had the training of the college to secure opportunity to teach in a high school. When it comes to

that other, and no less important preparation, the professional training, I confess to much discouragement at the outlook. I am only hopeful that the largest and the strongest schools, which have the means and the disposition to go out and prey on the smaller communities when a high school vacancy occurs, will secure people who have been well trained in the art of teaching.

For some time to come too the best of these will have received their preparation for the business of teaching as the majority of the gentlemen present received theirs. We learned to teach by teaching. The efficiency of such training may be as high as its cost. A friend of mine is fond of telling a story, illustrative of both the rare efficiency and the high cost of this kind of professional training. A lady of the English nobility was suffering from an affection of the right eye, which threatened its destruction. It was feared that this result might be followed by sympathetic blindness of the other eye. A most delicate and critical operation was necessary to save her sight. Owing to the lady's distinguished position and the probability of failure in the operation, many of London's prominent oculists were unwilling to undertake the work. The leader of the profession finally consented to do it, and a number of young oculists were granted permission to be present and witness the operation. The patient was made ready, the instruments were at hand; assistants passed to the great operator first one and then another till the work was done, as subsequent developments proved, with great success. As it was finished, one of the young men asked, "Doctor, how did you ever acquire the skill to perform such a delicate operation?" The great man gruffly replied: "I spoiled a whole hatful of eyes before I could do as well as that." Now there are a great many teachers who spoiled whole schoolhouses full of children before they could teach even fairly well. None of us are willing today to furnish the children for our younger professional brethren to practise on.

I should not agree to the proposition that the successful high school teacher is born not made. When Mr Downing speaks of

the prospective teachers now in the normal school and the teachers training college, who can not be made because they were not born right, it is well to raise the question if many born all right have not been spoiled in the making which precedes the normal school. Professional training for high school service is needed today as never before, because of the rapid extension of high schools. Let us however hesitate to accept this training in the art of teaching at the expense of substantial scholarship. It is unwise to spend time in training a young woman in methods of teaching mathematics before she herself has mastered at least the elements of higher mathematics. How to teach Latin is an important subject of study for the prospective high school teacher, but it should come after the training to know and enjoy Cicero, Horace and Juvenal—not before, and never without it.

If it be true that the high school is the school of all the people, demanding a certain elasticity of curriculum, we must ask ourselves on what principles the selection of subjects should proceed. I believe the day is not very far distant when we shall insist that the pupil under the wise guidance of home and teachers shall select a course running through four years of the high school, with the privilege of reconsidering that selection at the end of one year and again at the end of the second and the third year. But the choice and the revisions must ever be under such guidance as will insure that in the end there has been completed a thoroughly organized and coherent course.

A plea has been made for a return to the larger use of written examinations in high schools. It is well to test the knowledge which young people are supposed to have acquired, and to compel them to state intelligently the information secured. But, when we realize that very few high school teachers could pass all the examinations for graduation from their own schools, we should hesitate to put the examination fetish up again for worship. As an absolute and independent test of ability to do farther and better work it has been proved over and over again to be a complete failure. I hope no one is going out of this convocation

with any reinforcement for the temptation to take a backward step in this matter of written examinations. We still have too many of them rather than too few. Many of us would gladly welcome the day when we might be relieved of some of the responsibility involved in certifying pupils to college. Personally, I feel that there can be no safe and satisfactory system of certification from secondary school to college which does not involve at least annual visitation, observation, and testing of classes by several members of the faculty of the college extending the privilege of admission on certificate. But I would be the last to urge the abolition of the certification plan of many of our New England colleges and the substitution of examinations on the ground that we would thereby be enabled to do better work in our high schools. It is a sorry secondary school which can not get the best work out of teachers and pupils without holding over both the exactions of written examinations by outside authority; and I am inclined to believe that the least inspiring of the high schools of our country would be found to be those most subjected to such tests.

To one feature of Dr Brown's paper, I wish to call special attention. The secondary school is itself a life, as well as a preparation for life. We can not get away from the fact that it is in one sense a college fitting school. We ought not to get away from the other fact that a large percentage of pupils are there for something else than getting ready to go to college. We do make generous provision for the youth going to college or technical school. Let us recognize the demand for equal preparation of the boys and girls who are to go directly out into the various activities of business life. Great interest attaches to the problem now being worked out in such schools as the Mechanics arts high school of Springfield Mass., where the school authorities are endeavoring to make just as good provision for the young men who are to go out into the mills and factories, stores and shops as for those who will go to college or technical school, and this too without ignoring the fact that the high school is primarily a school of liberal culture.

Formal discussion

Sup't Charles B. Gilbert—

The pendulum, from reach to reach
Of warring creeds, the sages teach,
It swingeth, swingeth ever.
But at the point between
Men call the golden mean
It stayeth never.

No department of human activity is more subject to this law of undulatory flux than education. The reasons are obvious. We possess but few fixed principles and hence eagerly snatch at each new thought with the hope that at last we have a creed. Moreover, educational ideals and efforts necessarily reflect the prevailing conditions, psychologic, sociologic and creedal, in the society whose youth are being educated, and today in the social world there prevails the utmost uncertainty of doctrine and belief regarding the most fundamental questions, such as those of religion, of sociology, of economics. Particularly is there the widest divergence of opinion regarding the relations of each to each and of each to the social whole. Public thought is vibrating between the extremes of paternalism and socialism at one reach and individualism at the other. Men know not where they stand, and, worse, know not where they want to stand. Ever shouting for the individual, they continually put new burdens on the state. We have no prophet and no vision. Is it any wonder, then, that the educational ideals waver? The school, we say, must introduce the child to such a life as he should lead after leaving its halls. That were well enough if you were sure of the meaning and end of life.

So we vibrate from paternalism in school to extreme individualism, and again and more frequently from one form of paternalism to another. Indeed, the present question appears to be which form of paternalism is better. 25 years ago high schools were struggling for existence, but their ideals were fixed. Their recognized office was to introduce all youth who entered them to the blessings of an orthodox liberal education whose backbone was mathematics and the ancient languages.

The first departure from this standard came through the necessity of throwing a sop to the taxpaying Cerberus. The public demanded that the utilitarian needs of the individual be met in the people's schools. This popular demand found a strong support in individualistic philosophy, and in the subsequent theory of the cultural equivalence of studies, and thus liberal education was liberalized. The drift from this to a new form of paternalism was very rapid, till now we hear the demand for a vocational foundation for education.

The first reach of the pendulum was this: the state must give all its children who can take time for it a liberal culture. The foundation of a liberal culture rests on Latin and mathematics, hence all must study Latin and mathematics. A genuine though almost innocuous paternalism. The present reach is this: the state must fit all its youth for life. The essential of life for most is an occupation. Hence the state must teach each child the rudiments at least of the business he is to follow. If he is to go to college, it must fit him for this. If he is to go into commercial life, it must give him a commercial training. If he is to follow one of the mechanic arts, it must teach him the elements of his art; and this to many minds justifies manual training.

The latter in its paternalism goes far beyond the liberal culture theory and is nearer pure socialism than its advocates would admit. The fact that we are on this arc of the pendulum I suppose none of us would venture to deny. The only question is, do we want this sort of thing? Are we yet ready for such complete socialism in our public schools? Even if we are in theory, even if we have accepted a socialistic basis for education by the state, as I for one have not, would it be best for the children? Are we ready to say that the children in our secondary schools must choose a vocation before choosing a course of study? Again, I for one am not. In my judgment vocationalism has no place in public secondary schools. Nor would I go back to the narrow limits of so-called liberal culture. One form of paternalism ignores the individual and says that the same food and the

same medicine are equally good for all and, like Mrs Squeers's treacle and brimstone, must be taken by all. The other form of paternalism produces a forced or rather a pseudo-individualism and says to the callow and immature youth, entering a high school, you must now determine your life work, and we will put you into the groove you choose and shove you along. I have time only to outline the thought.

But I wish to urge this suggestion. Let all of our high school courses lead to a general culture. Provide courses enough to meet the aptitudes and possibilities of all, but let them all be cultural rather than vocational in aim and administration, that we may make of each youth the largest human being that he is capable of becoming. Train to strength, acuteness and vigorous activity all his tentacles, give him as many interests and as much and as varied power as he has capacity for and send him into the world a live, capable being, to find his own sphere of activity. The broader and fuller his development, the more likely he is to choose aright, the less likely to be a round peg in a square hole, spending his whole life in getting squared.

This is as far from one alternative as the other, and it is remote from undue paternalism and extreme socialism.

Prin. Fred Van Dusen—I shall offer no apology for departing, in the few minutes allotted to me, from the lines of thought so ably pursued by the previous speakers. I shall speak briefly of a matter which is not so much an actual present tendency perhaps in secondary education as it is a probability in the future work of the school. The topic referred to is the so-called system of individual instruction. The term "so-called" is used advisedly to avoid any possible suggestion that the efficacy, the immeasurable potency of individual instruction is a new idea, unknown to educators of either the present or the past. I have heard the subject treated with so great enthusiasm and with claims apparently so extravagant as to arouse the suspicion that the advocates of the system regard it as an absolute novelty in the science of education. Probably such suspicions are unjust.

At any rate the discussion, to be of any practical value, must be handled with some degree of equipoise and moderation.

Any well educated man or woman who ever attended the district school will recall that much of his best inspiration came from what may be called individual contact with some noble, if humble, teacher. To many a college-bred man the highest mental awakening in philosophy, in psychology, in political economy, in what you will, has come from such contact with some really great instructor, outside the classroom. We have all known grand teachers in college whose influence on the mental and moral development of students was undoubtedly greater outside of the recitation exercise or lecture than it was inside. Herein, by the way, lies the advantage which the student of the smaller college sometimes (though not necessarily always) has over the student of the large college.

The fact is, the idea of the value of individual instruction is as old as the time of the great Teacher and of Socrates and Plato—and older. It is an essential part of the true science of pedagogy, though it is only a part. The doctrine of child study is based squarely on it. Gen. Garfield at one end of the log and Mark Hopkins at the other is its very epitome. Private schools have been quick to ply their advantage in this respect, and in a measure the advantage was real, because the theory of personal attention is based on a fundamental principle of human nature and is therefore truly pedagogic.

What, then, is the present need of laying emphasis on individual instruction, and where is emphasis most needed? The answer clearly involves the public graded school system. I wish to say at once that I believe in this system. The American graded public school was the greatest educational invention of the last century. In the evolution of the American plan of educating the masses, specially in our large towns and cities, it was inevitable. And it has been a magnificent success, in spite of attending evils. The American boy that has had no training in the public school has missed a good thing. Let us not be pessi-

mistic about our public schools because only a portion of the pupils ever reach the high school, and only a very small percentage of them ever complete the high school course. It does not follow that the education of those who stop short of this is an entire failure. Many such, whose training has been limited, yet thorough, achieve a greater success in business and even in the professions than some college graduates do.

But the very necessities of the graded system have induced evils, and there has been a strong tendency to drift away from the idea of individual attention. In its application the system has too often falsely assumed a uniformity of attitude, of temperament and environment on the part of pupils, and has failed to provide for their individual needs and difficulties. The stress and monotony of continued recitations with large classes engender discouragement in the pupil and irritability, with consequent impotency, on the part of the teacher. The system presumes the survival of the fittest, but do the fittest always survive? Do we not all know that the less brilliant pupil in recitation is very often less superficial; that the slow pupil will often achieve the most solid success if he gets the proper attention and encouragement? If we lose those children in the early stages of their development, if we arrest their progress and perhaps embitter them against education itself, our system is to that extent a conspicuous failure.

Most of us know of the experiment that has been made in Batavia by Sup't Kennedy and of the gratifying, not to say remarkable, results that are claimed for it. I have no intention to weary you with details with which you are doubtless conversant. Dr Kennedy's arguments and claims certainly demand the closest attention of all teachers in graded schools. To him belongs the credit, which I hope may prove great, of emphasizing in a new way the need of individual instruction and of organizing it so as not to interfere with the graded system in the slightest degree.

I may say that in Ogdensburg we have introduced the system gradually with apparently excellent results. The plan is ex-

ceedingly simple. Formal recitations are had only on alternate days. On other days the period is devoted to quiet study, while the teacher addresses herself to the individual pupil's needs. It is asserted, and it is true, that the pupil thus acquires greater interest and facility in the class recitation, when it comes. His teacher's personal attention and sympathy give him greater confidence and quicken all his intellectual powers. It is claimed, and it is true, that, by reason of her increased sympathy and of her more intimate knowledge of her pupils' difficulties, she soon acquires "greater power in class instruction" and accomplishes more in the limited time given to the recitation.

Whether the time is thus most wisely divided is a question that will be settled by the test of experience. Whatever experiments are made must be made with due wisdom and caution. Let us not be like the Chinaman who stole a missionary's watch and returned the next day to find out how to wind it.

If the system of organized individual instruction, ingrafted on our public school system, shall succeed in bringing increasing multitudes to undertake an education and triumphantly to accomplish it, its promoters will be entitled to the highest gratitude. It is to be hoped that we shall adhere steadfastly to all that is best in the stimulus and emulation of class instruction. Let the elements of both methods of instruction be mixed in such wise proportions that all the world may say, this is the real education which secures the greatest good of the greatest number.

Prin. James Winne—In the phrase, "The school is life," is recorded the general belief that the life which the adult leads was largely determined by the school which the child attended. And this would be literally true, were we to mean by "the school" all the influences which cooperate to determine character.

The school is the institution for instructing and training young people for the duties of adults—for life. Naturally, its patrons are disappointed when the school fails to perform this function. But the duties of life are so many, so varied, so vast,

that the school, in and of itself, is inadequate to the task. Hence the many and earnest efforts to enrich its curricula, to modify its programs, to liberalize its teachers, to supply material equipment of the most approved character. Studied efforts are made to anticipate the problems of life; and these efforts in the secondary schools are anticipated in the elementary schools by carefully planned courses of study that shall produce symmetric development of the whole child. Truly, we are recognizing that the school is more than a preparation for living, it is life. And all the agencies that can be utilized to induce right living and generous serving are being commended. Just here we note a tendency to make the school rather than the home the center of interest. Let no teacher assign duties in quantity or character that shall alienate the child from his home. The school should supplement, not supplant, the home.

As the college found itself greatly embarrassed because its students were deficient in preparation for the work which the college attempted, so the secondary school has found its pupils immature for the work which it would do, specially in its effort to prepare for colleges, work which would elicit the cordial approbation of those dignified schools of learning. In the effort to prepare its pupils for living—its legitimate function—adverse criticism has been much more general but less pointed. However, the schools have felt the criticisms, acknowledged the justice of them so far as appreciated, and have sought to remedy defects. In turn, they have inquired of elementary schools the cause for weakness of children sent them, and the elementary schools have pointed to the parents! And the patrons have retaliated, in many instances wisely. The results ensuing from the reaction and interaction of vigorous investigations have been salutary to all grades of schools. The vital truth of mutual dependence of all grades of schools, however it may have been recognized in the past, has been acknowledged only in recent years by friendly conferences and subsequent cordiality and cooperation.

Investigation reveals the fact that the preparatory school was a peculiar institution whose function sustained no immediate relation to the preparation of its pupils for the duties of life. The secondary school, growing in favor with the public, has yielded to a worthy ambition and has assumed, as a part of its function, the preparation of its pupils for college. This effort has met with a gratifying measure of success, and has afforded an excellent opportunity for comparing the effect of various courses of study. The comparison is so favorable to the modern courses of study that the secondary school is warranted in asking that the secondary graduate who has pursued a balanced course of study shall be accepted by the college and thus afforded the opportunity to realize most fully all that his talent makes possible. The college is more than justified in demanding that the work in science which is offered as preparatory for college shall articulate with the college work. We trust that the conferences of college professors and secondary principals will secure the desired articulation.

But the patrons of the secondary school are abundantly warranted in demanding that the boys and the girls who do not go to college (and who the more need the very best) shall have opportunities equal to those whom circumstances have more favored. Hence the earnest and persistent efforts to make the curricula so liberal that each shall have opportunities suited to his peculiar needs. It is here that we find the most active and most general effort in secondary schools—to enrich the curricula. Less effort is made to fit the child to the system and much greater effort to adjust the system to the child. The course of study is, perhaps, the most perplexing problem that we are trying to solve. We discover a reaction to counteract results.

1 The demand that graduates from the secondary school shall be "able to do something" is causing the introduction of manual training. Very few question its value for city children, but many seem to doubt its value and practicability in the smaller secondary schools. I consider manual training very important in

rural schools. Where it is properly conducted, the children cease to find school a stupid place because "they don't do things."

Education is made practical by teaching the children the application of their studies to the various occupations of life.

Prin. C. D. Larkins of Brooklyn manual training high school has well stated the value of manual training.

When made to stand by itself, most of its value is lost. . . . In a trade school the personal aim is skill, and the material aim is an excellent piece of work. In a technical school, the end is the mastery of the principles underlying some particular occupation, and the attention is centered on those principles and contributory subjects. In a manual training school the aim is the coordination of the mental powers and development of creative ability. It is not to teach a boy a trade, or to teach him one of the engineering sciences, but so to develop him that he can grasp the principles of any occupation, and meet its requirements.

I wish we might record a more aggressive tendency to introduce manual training as an essential part of the work of every secondary school. Those who know most about it, give the assurance that it renders all school work more interesting and thereby results in a saving of time for other subjects. The expense is trifling. The returns are great. While its advocates do not consider it a panacea for all educational ills, they do regard it as an essential element of every well planned system of education.

2 I note with much gratification the increasing favor with which kindergartens are meeting. Their work is a suitable introduction to the manual training that should follow in the elementary and the secondary school.

3 It is to be regretted that athletics seem to be encouraged in many instances, mainly because they add interest to school life, or as a means of advertising the school. When conducted in the right spirit, athletics should be educational and invariably healthful. I think there is a tendency to modify the motive, and to recognize the true value of all sports.

4 Physical training has received far too little attention. We have but to notice the rounded shoulders and ungainly move-

ments of the average youth to realize that systematic and persistent training of the physical is necessary. Pres. Barrows has well said: "If I had the ear of the leading business men of America, I would whisper in it as the wisest counsel I know to men over 50 years of age, 'Golf first, and business afterward.' This means longer lived, more successful, happier and better American citizens."

5 Observation of the life of boarding schools, where, in addition to the work of the day school, a home must be furnished, has shown that many social phases of education are practicable in our day schools. Debating clubs and literary societies have become in many schools important factors, contributing to development of the social qualities of the pupils.

6 Nor has the incentive to patriotism been wanting. Not only does the flag float over the school building, but the spirit of loyalty is stimulated by the recitation of patriotic thoughts. In many schools the spirit of true democracy is exemplified in the method by which the school is governed. "Undertake the right thing from the right motive, and do what you undertake" would be an excellent motto for all schools.

The extension of curricula has revealed more effectively than any other agency the limitation of secondary teachers in liberal equipment. The result is an increasing demand for teachers more liberally prepared for their work, and with professional training. The response to this demand will secure more accurate scholarship. It is pleasant to record a tendency to employ only college-bred men and women in secondary work.

Among the most interesting experiments at present is the effort to secure to each pupil individual instruction. The experiment promises much. However, great care is required lest the loss exceed the gain; lest the pupil lose his independence, his power of initiative.

The rapidly increasing enrolment of women in college is cause for rejoicing. While men have always enjoyed a recognized right to individuality, women have been thought of too long as a class so confined to the home by their duties that education is

unnecessary. Such ignorance can not belong to this century. The best and most liberal education is not too good for the wife and mother.

In conclusion: We find a restlessness in the secondary schools that is encouraging because accompanied by an earnest inquiry for the best in purpose, in spirit, in method, and in equipment. While striving to furnish satisfactory preparation for the work of the best colleges, they are seeking still more earnestly to establish the pupil in that method of thinking and that view of life which shall enable him to realize most fully the best that his talent makes possible. Physical culture, manual training, social phases of education, esthetic influences, instruction of the individual, recognition of individuality among girls as truly as among boys, and more liberal and more scholarly preparation of teachers, are receiving increasing attention.

General discussion

Prin. Joseph E. King—The previous speakers recognize the tendency and trend as existing facts. They do not tell us how it is superinduced or whether we as teachers must stand by and be dominated by it, or whether there is any possibility of dominating. It seems to me from our elevated standpoint we have a degree of responsibility for this trend. What is it and how does it come about? Is it not analogous to the train of ideas passing through the mind in our waking hours? It is not determined or directed by chance. It comes to a certain extent by the nature of things. It is influenced more often by our moods. It flows to a certain extent from that sense of order which God has put in all of us, and to a certain limited extent the trend of thought can be influenced by the will. Now this tendency or trend in educational lines has its origin in the composite experience of this and that educator, this and that teacher, which finally produced lines enough to constitute a trend. Who is responsible for it but we ourselves? If the trend is all right let us avail ourselves of it; if wrong let us put our personality into it and twist it into

a better shape. I think the responsibility of these educators here today may not be relegated to the masses. If the trend is not right in any regard, we must set it right. That is my thought.

Prin. Joseph E. Banta — If I may speak on what I believe to be a subdivision of the last head of Prof. Brown's article, education is the making actual in each individual of what he has it in him to become. In this process the character of the teacher is an element of the utmost importance, greater, I believe, than college training, greater than pedagogic training. In mechanical pursuits it is possible to separate the product from the producer; in spiritual pursuits never, and teaching is a spiritual process, it is life that begets life. Reduced to its final analysis, the main spring of action in one is action in another; and, if we would see in our pupils that which is right and noble, acting from a high motive, the same must be true of our own lives. It was the great Pestalozzi who said that the central element in all education is not teaching at all but is love. In other words the ideal teacher has a heart as well as an intellect. The disciple is not above his master. The teacher should be that which he would have the pupil become. Arnold of Rugby was right when he said that the master of Rugby must first of all be a Christian and gentleman, and then he must be a great teacher. First, then, I say the man and the woman, after that the teacher. Education has its spiritual roots, found in the loving heart and the sound character, as truly as it has its intellectual roots, found in the clear brain and the active mind; and the most hopeful tendency of modern education noticeable in the secondary schools is the fact that those who are responsible for their employment are paying more attention to the man than is paid to his education and to his pedagogic training.

Tuesday afternoon, 2 July

PRESENT TENDENCIES IN HIGHER EDUCATION

BY PRES. G. STANLEY HALL, CLARK UNIVERSITY

Tendencies may be shown by statistics, laboriously compiled, or by mosaicing together new departures in many lands that seem most hopeful, or by making some concession to the liberty of prophecy as expressed in individual conviction where it has grown clearest and strongest by years of study and work. Permit me, in my brief time today, while not ignoring the first two, to lay perhaps chief stress on the third in attempting the baffling and at best unsatisfying task of speaking to a theme, the adequate treatment of which would require one to be a spectator of all events and a citizen of many lands and ages in a field where all the old problems are still burning, but with a vast number of new ones, the solution of which would require the combined effort of experts in all the higher fields of learning. But I will waste no time in prelude or apology.

The degree of doctor of philosophy is the highest of all academic degrees based on actual work, and by general consent it must be kept pure and never given *causa honoris*. It is a laudable goal for every young scholar to strive for. It ought to mean first a liberal, general college training, and on the basis of this, three years of training in some specialty. It should be reserved for those only who have also contributed some addition, small though it be, in the way of research and investigation to the sum of the world's knowledge. This degree inherits the best of academic traditions for nearly seven centuries. One of the best ways of grading universities is to compare as far as we can their requirements for this degree, and one of the coming questions, already much discussed in Germany, is whether its standard should be somewhat raised and lowered to suit the law of demand and supply. In my judgment, the most important next practical step is to urge

on all who can influence the appointments of teachers in high and normal schools, specially men, to give holders of this degree greater preference and to enlarge the favorable presumptions in its favor where other things are equal. I doubt if a single head of a French *lycée* or a German gymnasium could be found without this degree, and the great majority of male teachers in these institutions have it. In many places, it is required. That should be and will gradually become true in this country. On the other hand, all who prepare for careers as high school teachers should strive for it, and none who attain it should look down on these positions. Few things would do more than this change to enrich the course and raise the quality and perhaps above all to improve the method of high school work, one of the most crying needs of which is more expert and specialized knowledge on the part of the teachers. Abundant evidence of this, from about every point of view, is at hand.

There was a time when specialists were often spoken of with disfavor in educational bodies in this country, but that time has happily passed. Two great laws, that of conservation of energy, which has correlated all the sciences which deal with animate nature, and evolution, which has coordinated all the sciences that deal with life, have made narrowness impossible. He who knows but one language, species of mind or animal, or but one religion knows none. We now study comparative psychology, including animals, children, insane, criminals, comparative anatomy, philology, religion, etc. The chemist may study stars, plants, animals, but is no less a chemist. The physicist is at home wherever force and energy in their protean shapes can be determined. The old, so-called general culture is little more than a kind of index knowledge of where to find things, but still has grave dangers of shallowness and smug complacency. This danger is the conceit of knowledge without its substance.

Nay more, the time is at hand when no one can truly be called a scholar who, in addition to knowing a little something of almost everything, knows almost everything of something. Specialization is now almost necessary, not only for mental

but even for moral maturity. To have pushed on toward the top of a broad based pyramid, to have left magazine knowledge, to know all that is latest and best and to have become a master in some one point, even if small, is a new experience; to be no longer an echo, but to speak with authority on something, makes one all the more docile and respectful to other authorities in every other field. This alone is full citizenship in the modern intellectual world. It is the dubbing to knighthood, the royal accolade which says to the young initiate, now stand erect on your own feet, look around you, and henceforth light your own way by independent knowledge. It is turning around and getting out of Plato's cave, where only shadows were seen and only echoes heard. This is specially important in a republican form of government, which is sacred to individuality, and which should therefore develop it fully. The best minds go to waste if they attempt too much, and the second best succeed if they learn the discipline of focusing mind and will, so that they can do one thing well. Such men are already leaders, and will be far more so in the future. Who says the final word today wherever momentous questions are decided, whether in the medical council where life hangs on a thread, in legislative committee rooms, in great schemes of building, architecture, manufacturing processes, that short circuit old ones and cheapen goods, or where the gravest cases are settled in courts? In all these cases the final and directive word is spoken by the man who has mastered the one special field, whom none can teach but who can teach all, and who speaks with a new species of eloquence worthy of new eulogies. Such men are the best product of university training, the most precious possessions in the modern community; and even the great industrial leaders, who sometimes disparage academic studies, are only they who have had the wit and force to give themselves just this training, and who perhaps are just in their criticisms, because we teachers have not learned to help to guide others along the curriculum over which they guided themselves.

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Japan has built a special graduate academy to train a few most gifted youth, sifted from grade and college stages, to the very acme of their power. France has seen it; and the post-graduate *École Politique* trains perhaps the most matured group of students on earth, some five sixths of whom have already become prominent in politics and administration; while in the *École Pratique* the French government sets apart the best professors to develop the most gifted specialists for the higher academic and other careers. Germany has long understood this secret; and in her new *Reichsanstalt* and in some dozens of other institutions and seminary groups does the same thing. In England, Russia, and even in little Greece, new organizations have been found to the same end.

One of the greatest evils in American education today I deem to be the dominance of the high school by college entrance requirements. This makes the high school servile and unprogressive, uninterested in adapting its work to the needs of the country. or the majority of the pupils, a decreasing percent of even its male graduates going to college at all. This, I believe, is largely responsible for the rapid decrease of the number of boys in the higher classes. It makes the meetings of high school and college associations devoted to technical matters of adjustment, and excludes from them most of the larger open questions which belong here. This and the momentum of the grammar grades shut out the high school from most of the fresh currents of educational thought and make it the least progressive in spirit and method, and that too at an age of real renaissance in high school buildings; organizations and equipment. In the order of history and nature, education began in early adolescence; in the elaborate initiations, conversions, church confirmations at this most vulnerable age of second infancy, when temptation is strongest, when the mind is most plastic and receptive, when the powers of expression or accuracy of thought or hand are reduced, when real interest in the future and the problems of maturity begins, when self-guidance should be appealed to; at the entrance to which all

method and matter should be slowly but profoundly revolutionized. Here schooling began and extended with progressive civilization up toward the university and down toward the kindergarten. For these reasons and more, for which there is here no time, the iron law of method, conservatism, and cram, which now prevails wherever these schools chiefly fit for college rather than for life, is the saddest aspect of our whole system. We have rare opportunity, because the line between secondary and primary education begins at the dawn of this period of psychophysiologic regeneration and metamorphosis, but we have thrown the opportunity away. More than any other stage the high school should study and conform to the nature and needs of the individual. Before this, from about 9 to 14, is the age of drill, habituation and discipline. After it, the impersonal laws of science become supreme, but this is the birthday of gifts, when the floodgates of heredity are opened, when curiosity is most all-sided and intense; and here we have sinned against the holy spirit of human nature and turned a deaf ear to its still, small voice.

The best tendencies in university work are now radically and diametrically opposed to the uniformity cult, too dominant in college and still more in school, specially in New York state, which suffers most from the evils of over-organization. The elective system has been moving down the grades till it in some sense culminates in the new book of Sup't Search on the *Ideal school*. He has been tunneling the same mountain as Pres. Eliot has these many years, only in the other direction, from below up. This general movement is one of adjustment to individuality, and is both logically and practically incomplete without the study of individual children and youth as a basis of adjustment and election. It, and not uniformity, is the type of education suitable to a republican form of government and also to the methods of developing specialists, because heights can not be scaled in phalanxes. A system which recognizes individual differences at the bottom, as e.g. between eye-minded, ear-minded and motor-minded; that has methods effective first for

discovering and then developing gifts and trains along the lines of strength, makes every school a life and career-saving station. Such institutions are products of simple common sense economy applied to the most precious thing in the world, namely, innate ability. We have many estimates of the range between the least and the most able students in classes of all grades. The extremes of brain capacity differ from 1250 to 2238 cu. cm. The personal equation as seen in association times is between two and three times as great for the best as for the worst. One observer says the best two or three can and ought to do four to six times as much as the worst. Another concludes that in an average Latin class the best few can do 140 chapters of Caesar with the same time and effort as the worst can do 40. Another says in general the difference is about threefold. One figures out the ratio as 140 to 479; another as 19 to 515. Nothing is so easy as to slow down the mental pace of the fastest well toward that of the slowest; to discourage the able while overworking the dull, and that too without consciousness on the part of either teacher or taught. As civilization becomes complex and its luggage of skills and knowledges vast and the prizes for excellence great, it is more and more necessary to train each along the lines of his strength and to study the early manifestations of both ability and weakness.

From these considerations we see why it is that the best university experts, and I must add those who also best know their own interests and that of their departments, want to work and can to advantage with only a very few of the best students and fellows. If these have their rights, they will have the constant, daily, personal care of the professor, however able he is. While he may refuse to work for all fourth, third, or even second rate men, it will be his joy and his passion to inspire the best. He will thus double and not half his own power and efficiency; will experience in intercourse with students what Lotze well characterized as the supremest joy of earth, the real Platonic, Ciceronian friendship of able men in promoting the high cause of truth in the world by the Socratic, conversational method, which with this method

is the most effective. Every experienced university investigator knows also that he can work to the best advantage with men of a certain type, and that with others there is a little loss of some sort of undefined, yet very effective, elective affinity. In the near future I believe the best work of the world in all departments of activity will be done in just such groups, on the basis of the Greek *philia*, or the natural, mutual love of élite older and younger men, reenforced by the enthusiasm of a common specialty, with that noble emulation which Plato says makes each member of such a group most abhor any unworthy thing or act, and strive hardest to bring out their best qualities. This is education in a different world from the low plane of competition for numbers and an education in masses.

Utility is another pedagogic shrine whose altar is always covered and piled high with oblations in this country. It has its place, but it is a protean, slippery, and almost dangerous word. All that is best and much that is worst in our present culture tendencies can easily be included under it. It may mean pleasure as in some schools of ethics, money-getting, or business successes in the esteem of men like Mr Schwab or Mr Huntington, who are after all in a way right. The tendency to manual, industrial training and applied sciences and all the economies of learning, has been an immense and wholesome stimulus. Perhaps the patent office may some day have a branch in the university laboratory with a balance of advantage. But in the long historic battle between pure and applied knowledge, with the shifting preponderance of both popular and expert favor on one side and on the other, the university must not forget that one of its most sacred trusts is to maintain an asylum where great minds have worthy incentives to devote lifetimes to the quest of pure knowledge with no thought of pecuniary advantage. Astronomy was at first greatly stimulated by the necessity of forecalculating Easter, of navigation, foretelling eclipses etc., but hardly an item of all its magnificent achievements for a century has been of any kind of practical utility or has brought wealth to discoverers. Hence this, one of the most precious of

all branches for its educational effects, is almost unknown in high school curricula, and the great academic observatories in many places are either not open to college classes or are unfrequented by them; and almost the same is true to some extent of other great departments like anthropology, or the study of man, and to a somewhat less extent, of pure biology, or the study of life, while chemistry, electricity and magnetism, with their new, vast and immediate utilities, have their laboratories crowded and are producing doctors of philosophy at a rate which suggests the learned proletariat which Billoth described in Vienna, where there was such an over-production of young doctors that the professors, by a perhaps just but ironical fate, had quietly to assess themselves for charity to keep their intellectual offspring from starving.

The purely philosophical faculty is the heart of pure science and of the ideal university. It is not training men for any profession in life, unless it be that of teaching. Just in proportion as classrooms are filled with and the time of the professor consumed by those who are on the way to other professions, the department has no place in a true philosophical faculty. Indeed, it threatens to become almost a matter of life and death for every institution of a really university character to maintain a group of departments, few though they be, which shall attract students, however few, who have a passion for making great personal sacrifice for the love of truth. My heart is seldom more deeply stirred than in meeting, as I do each year, able, well trained, young men, who, though impecunious, refuse lucrative prospects and openings in the professions or well salaried places to teach in the high schools and technical institutes, but are happy with an almost starveling wage and in some very subordinate apprenticed position in a university, where they have leisure to work and where there is a prospect that talent and research are sure of whatever recognition they may deserve. For them are all the promises and beatitudes of science and scholarship; they are the saints and martyrs of our day, unknown often by even their neighbors while foreign savants cross oceans to see them. The newspapers,

which create great reputations for those who simply apply the discoveries they make, know them not. But such a one needs not and cares not for these things. The teaching professor relates his triumphs to his classes perhaps, and they repeat the story to others, and they to yet more. Others exploit his work in patents or processes in manufactures. Yet others make and sell the instruments he has devised and write up his work in popular and profitable textbooks, though, as the circle widens, his name—such is human nature—is more and more unknown or hidden behind that of his exploiters, till in some sad cases we almost have a repetition of the old tale of Jubal, who first discovered and taught a few friends the great art of music, and then wandered into far lands in quest of farther wisdom. At last he returned poor, sick, and unknown to his home and found the whole populace celebrating his own discovery and even his own name falsely assigned, so that, while the name of Jubal filled the sky, the real Jubal lonely laid him down to die.

The president of the ideal university, if indeed it will need that officer, will be less magnificent; but his functions will be inside, and not outside. His interest in young instructors will not cease when they are appointed, but will only begin. He will strive by interest in their every effort, which he will make as intelligent as possible even in fields where he knows nothing, to make a paradise for young instructors, whom, in a stimulating atmosphere, with great freedom and little drudgery, it is a marvel and rapture to see grow from year to year. His success will be measured largely by capacity to detect talent in the bud; to know the earliest outcrop of thoroughbred qualities; perhaps his reading will largely be in the biographies of great men that he may cultivate more infallibility in this regard. He will never delegate this matter to any other than experts, but will insist on supplementing their verdict by his own personal *visé rationné*. He will rescue ability in research from a second, third, tenth, or even a disparaging rank in selection, and make it first, cancelable only by grave moral defect. He will be alert in the inspection of new topics and chairs, and not be content with simply duplicating

old and standard departments. The passion for dollars and students will not dominate all his acts and words, but the advancement of learning will be nearest his heart. He will have tact and sagacity to lead and make, and not follow public opinion, and the courage to be a martyr to it if needful. His ultimate ideal goal will be to develop a new and higher type of man.

The student will not only reach the frontier, but will strive to cross it, and contribute, though it be but a single tiny brick, to the great temple of knowledge. This is a work far above acquisition or examinations, for it is doing rather than knowing. The novice graduate is here a babe. He will as a rule never walk alone unless aided. Even if his contribution is little but restatement or condensation, it is his first work. After the first baptism of printer's ink, when the consensus of the competent everywhere is challenged, the young man often becomes a new creature with new ideals and methods ever after. He has taken at least the attitude and imbibed the ideal of a discoverer. He has higher standards of truth and a finer sense for it and for error. The topic of his thesis must not be selected to aid the professor in his work, but the latter must be ready, if need be, to become dung to ripen his mind. The topic can not be too special. The risk of failure to attain results must not be too great. Every thesis will be printed, though in a few of our best institutions this is strangely enough not yet required. The teacher must brood and incubate the young soul till it is fecund, and not repine if his own aid is scantily acknowledged, for his students are his epistles known and read. One of the new problems is now for both student and university to use exploitation and exchange of these theses, in which more of the best work of the world is to be, just in proportion as universities make their scholarship productive.

Another new problem is university journals. Here as in most of these fields, the Johns Hopkins was the pioneer and leader. Whether each department has its own organ or combines with the same department in one or more other universities will depend on the volume of the output. Monograph series and

archives will supplement journals as we develop, and here again new problems unknown to college faculties loom up.

Just in proportion as real university work develops, the very dearth of great professors and also the enormous expense of research will make it impossible for any department to be complete in any single institution, and each must be content to lead in sub-specialties. This should bring a new higher inter-university coordination and correlation. For instance in my own department, at one place the best work is found in neurology; at another in the study of instinct; at another in laboratory psychology; at another in child study; at another in the theory of knowledge; the history of philosophy; ethics; psychology of religion, speech, morbidity, crime, defects, logic, etc.; and so to some extent in all departments. This means not only differentiation, but the integration which goes with it, and will surely tend to break down the really juvenile and ignorant provincialism that sees every excellence in one alma mater. One effect will be free and constant migration of students from one institution to another to learn the methods and strong points of each leading professor. One of the great obstacles to this is now the fellowships, which so easily become a kind of protective system for weak professors and departments, exempting teachers from the wholesome stimulus of the struggle in which the best survive. Another result should be a friendship in rivalry of professors with their colleagues in the same line elsewhere, and the gradual development of the university invisible, composed of all those who have risen above local prejudice and desire only the friendly correlation of their work in a manner most effective for science.

May I add, that in our own very few but best developed departments at Clark, for 12 years our little faculty has been animated by these principles; though in confessed poverty, we have tried our best to do high thinking with plain living, not only sustained by success most satisfying to us in our little field but walking by faith, the evidence of things not seen; and none of the great institutions, I know, can be jealous if I say we are a standing demonstration of the power of faith in the ideal education. For

one, I can not envy the universities so magnificent in their multiplying millions and their imposing architecture, their long class rolls, the glory of their great men. I bid them from my heart Godspeed, but I have no ambition to emulate their material splendor. Give us only books, apparatus, shelter, academic leisure, professors who prize these above all things else and a little band of able, devoted students, salaries and fellowships that give body and mind all the food they need, and then let the wise judge and compare. We want the aid of millionaires; we do and will continue to deserve it, but, if this is denied, we will develop the consolations of poverty which the rich dream not of.

More yet; the reaction is at the door. Great institutions have evils inseparable from their size—distraction, confusion of students among many courses, ideals, cliques and comparisons, fashion, vast and expensive administrative machinery involving time and effort, a liability to factitious complacency in size and prestige, a great and widening gulf between teacher and student, with dangers of idleness and error, and even wrongdoing; perhaps city life, so stimulating yet so hard on the health of both body and soul for the young, where it is so difficult to keep the “still air of delightful studies” pure and tonic; where the scholar can never be a recluse; where idleness more easily lapses to apprenticeship to sin. In all these and more, the small institution of whatever grade has some advantage.

The true university man, as I conceive him, refuses to be dazzled by the splendor of great gifts or great institutions, universities, though they call themselves, by splendid architecture, by vast aggregations of students and professors, or by federated and affiliated institutions. He has no spark of jealousy or emulation of the great university presidents, who by the necessities of their position are prone always to hold a brief for the interests of their own institution first, and undertake outside work just so far as it serves this, and who are prone to have the song of dollars and students or both in all they say and in all they do. Academic freedom is his vital breath, his native air, and he dies mentally or resigns if he can not have it in full measure. The temporary

utilities and small prudences, which the great administrator must consult, the ideal professor will and must resent if they impair his full efficacy in the service of truth. He will not be played as a drawing card or be elbowed into any disadvantageous conditions or enslaved with the drudgery of mass teaching, which cheaper men can do as well. He must be supreme master in his own department and will be nagged into nervousness by no interference. He is a citizen of a higher realm, a member of the one great university invisible, not made with hands, but eternal in the hearts of those who love and serve truth alone, the university that transcends localities and names; he is perhaps something a little more sad than glad at the college yell of its alumni at commencement, who vow eternal loyalty to their alma mater, whom they love as they do their own mother, not because she is superior to every other woman, but because she is their mother, and because they have never felt the higher call to leave father and mother in the service of one yet greater. Such a man despises all petty inter-institutional rivalries; he strives to excel his colleagues elsewhere, but loves and reveres them as brothers and rejoices at and is inspired by all their successes. He is not thrilled by the applause of the popular audience, nor intoxicated by the praise of the populace. His name is not familiar to the readers of dailies, weeklies, monthlies, but he leaves what the French call the vulgarization of science, even in its best sense, to others, even though he may heartily approve it. His laboratory or seminary is his temple, where he worships the true God and studies His first revelation in nature, and even the Sabbath is often not too good for his communion with Him; for the undevout explorer or discoverer in any field is mad; and his instruments, methods, books, are the paraphernalia of his worship in thinking the thoughts of God after him. Do such men exist or are they like the Hindu mahatmas, who store the wisdom of generations in remote places and will be visited only by adepts? Every scholar knows they do exist, and most have met them, and many have been transformed by them; but, if all these attributes had no reality in any one time, place, or man, they are true ideals

and might exist anywhere. And there are those who love and revere such men above all the other children of men and who would rather be such a one than to be king, president, millionaire, statesman, popular hero of any kind, or all these together; and, if human nature is sound and its aspirations are really the best material for prophecy, then these are the true *beati possidentes* of our day.

Special addresses

Dr C. H. Thurber—I have long been a follower of Pres. Hall, and it is my great good fortune to follow him today. From experience as a student in his seminary I want to assure you that I feel a great deal easier when I have the last word than when he does. True, when I have come after him, there has never been much left for me to say, but once he has got after me, there has not been enough left of me to say it.

It is the evident purpose of this meeting that we shall use this opportunity for taking an account of our educational assets, to see in what shape we start the 20th century. A recent work on pedagogy has defined education as the art of making bad men out of good babies. A long list of instances can easily be cited to prove this definition to be a sound one, provided of course our theology permits us to accept the premise that all babies are good. Higher education puts the finishing touches on this product, whatever it may be, and is certainly not prepared to admit that the above definition is anything except more witty than wise. In considering our conditions at the opening of the 20th century, it furnishes a valuable basis of comparison to look at the shape we were in when we started the 19th century. What was there in the way of higher education at that period? There was no University of Berlin, no University of France, no University of Chicago, ready to affiliate them all! There is no question that we have been going through a great period of expansion. Probably nine tenths at least of the existing higher institutions of the world came into being in the last century, a goodly proportion in the second half of that century. These institutions have sprung up here and

there, not only in this country but in others, in response to the needs of the locality and of the time, but without any general system of organization or any model of general validity. The result has been a heterogeneous conglomeration of institutions working on more or less independent lines, and not always in absolute harmony.

Out of this situation has developed as the second stage the present tendency toward a distinct growth of self-consciousness in our higher institutions of learning. We have taken to moralizing, collecting statistics, studying our internal organization, and engaging in a great deal of introspective analysis. One is reminded of the story of the parent whose little girl was, in his judgment, getting too familiar with physiology, so that he wrote the teacher that that study was to be discontinued, that he did not want his daughter to know so much about her insides. This introspective phase is now on us. Take for instance the great organizations of higher education, the three or four associations of colleges and preparatory schools in different parts of the United States, and the newly organized Association of American universities. The topics discussed at the meetings of these associations will be found concerned mainly with the psychologic details of the higher education. This is distinctively a psychologic age. In our higher education we are applying impartially all the modern lines of psychologic investigation, not only introspection, that good old stand-by, but also experimental and physiological psychology. Inordinate self-consciousness may be a fault in educational institutions as well as in individuals. I am not aware that there is any marked tendency at the present time toward the reduction of our higher educational processes to the automatic stage; but such a tendency ought to be inaugurated lest we be driven to desperation by excessive introspective analysis.

Another very easy tendency of higher education to note is its tendency to be higher. A divine dissatisfaction marks our conditions today quite as clearly as a superhuman self-complacency stamps the conditions of a century ago. Secondary education

today stands about where higher education stood then, or even in advance. Now everywhere our higher institutions are pressing with relentless enthusiasm against the barriers of human knowledge. We discuss gravely the point at which lower education should begin, but who so rash as to suggest any limit to the higher education! As an inevitable result of this upward thrust comes a great specialization and differentiation in institutions. This problem of differentiation has been one of the great puzzles of the last quarter century. In Germany, where matters were settled by a well defined system of very different institutions, the results have caused no little dissatisfaction. I am speaking now of the schools below the universities in continental Europe which we include in the limits of higher education. Only a few months ago the emperor of Germany issued a decree in which he approved the farther emphasis of the differences in the existing higher schools, but with the proviso that less difference should be made in the opportunities opening to the graduates of these several institutions. In France, where no such differentiation has hitherto prevailed as in Germany, a constant struggle has been going on for a number of years to secure in the *lycée* some division of courses. The fundamental question in all of these efforts is this: How shall the child be given the opportunity to follow seriously any line of scholarly work, without thereby limiting his opportunities in mature life? We are wrestling with the same problem, and a part of it seems to be represented in our elective programs, and the shortening of the course leading to the bachelor's degree.

The most striking feature in the education with which all the other centuries have opened, is its essentially aristocratic character. The education of the past has always been exclusively for a favored few, caste or sect or sex. It has not only recognized but cultivated the distinction of the classes and the masses. Higher education has been held as a thing sacredly reserved for the chosen and elect. The last decade or so of the century we have just left has shown a remarkable struggle on the part of the higher education toward a larger social service. We see this in

our university extension courses, in our evening classes of one kind or another, in our correspondence study, and in that distinctively American institution, the summer school. Not satisfied merely with opening their doors to all who were enabled to enter, the university and the college have been aggressive in carrying their intellectual wares to the very doors of the great multitude that can never hope to matriculate in any higher institution of learning. This tendency is in reality a revolution to be fully appreciated only in the light of that long history wherein education has been arrogant, self-satisfied, selfish, exclusive, supercilious and domineering. To that saying, the best is good enough for the children, we must now add that other saying, the best is good enough for all the people.

Higher education is now organized into many mighty machines which we call universities and the like. Some of these are great business enterprises. They involve an amount of routine, system and perfection of detail undreamt of a century ago, and which is terribly time-consuming for those who are intrusted with its care. The tendency is unquestionably to develop some men of splendid administrative ability in educational fields. There is constant correspondence between these institutions, a constant study by each of the institutions of the others, a constant striving by all to raise themselves to the level of the best. Is it possible that there is a tendency toward a dull, uninteresting level of superiority where all shall be equally splendid and none shall be splendidly superior? Is it possible that there may be a tendency toward the repression of original and vigorous individuality, the result which some careful observers predict as the outcome of our higher civilization? There was something romantic and also something of inestimable value in the experiences of the wandering students of the middle ages going from place to place to hear great men. We have witnessed in our own higher education a development of this tendency in the last decade. Will it not be an unwelcome day, if it ever comes, when every institution of higher learning shall be just as good in every respect as any other and in no respect any better, and when

students shall choose a mere institution and not certain great men who are connected with it at whose feet they long to sit?

Then there is the feminization of higher education as of all other grades. The simple fact is that in our country in all but the higher schools, the women teachers vastly outnumber the men, the girl pupils vastly outnumber the boys, and mothers take a vastly greater interest in the education of the children than the fathers. We may have to look out or we shall have an ignorant masculine proletariat face to face with an educated feminine aristocracy. In higher education, it is true, men still have a fair lead, but the women are gaining rapidly. This is certainly a present tendency in higher education which may well cause men to look thoughtful. Their historical supremacy is in grave danger.

If any of the tendencies that I have suggested seem pessimistic, I am no pessimist, but an optimist even to the extent of believing that we may rise on other people's dead selves to higher things. There is one great optimistic tendency in all of our higher education, back of all other movements and inspiring them all. It is toward the democracy of learning and the supreme aristocracy of *truth*. The truth alone is of supreme value; by it alone shall all else be tested. Over the gateway to the temple of our higher learning, opened to the 20th century, stands this motto, with a richness and depth of meaning never given it by any other century on the rolls of time: "Ye shall know the truth, and the truth shall make you free."

Pres. Rush Rhees—It has given me great pleasure as well as no little profit to listen to the addresses that have been made in this place, and in particular I am under obligation to Dr Hall for his discussion of what I suppose he would not object to my calling the highest education. In fact, if I were to confess to any discomfort in following him, it would be due to the fact that the education which he has been discussing is that which he is competent to discuss with comparatively few men in this country. We are coming to a definition in our conception of education which distinctly warrants our classification of a certain type as

the highest. We are importing to our great advantage the feature of German education which Dr Hall has most eloquently set before us today, as he has urged the pursuit of truth, without any ulterior end, eliminating from it any consideration of the relation which that pursuit may have to some profession or other, but finding the impulse solely in the love which man has for truth. Yet there are in every generation of students but few of these solitary and superior souls to whom is given the privilege of so penetrating into the inner secrets of God's word and finding in them their life and their worship. There is room still for a higher education, distinct from this highest education, which is of great practical importance to us as teachers. I suppose it is true in Germany that comparatively few of those who attend the university enter on that pursuit of learning which has been described by Dr Hall. His words, if I mistake not, apply only to those who obtain their doctor's degree in the two highest grades. We in this country have not adopted the German distinction between the lower and the higher grades of the doctor's degree, the latter of which is granted only to those who, by patient research and demonstrated ability obtain their right to the title of doctor of philosophy. There as here many seek the culture which learning gives, the enlarged view of life, better fitting them for the activities of life. For such students among us the college still provides a higher education. I think it suitable, therefore, in what I have to say, to consider certain tendencies in this higher education, the education which seeks to fit many men for a life of culture, as well as to prepare some men adequately to enter on such a pursuit of the highest education as Dr Hall has set before us. In what is known among us as college work, are there any tendencies which are of particular significance? I have no thought that I am offering to you more than a trite suggestion when I ask your attention to two. There is first a tendency to the regulation of that free election of studies which has become almost universal in our colleges. In the university free election is as essential as it is habitual; transferred to the colleges, however, it has led in some cases at least to a c

tain desultoriness of education with a consequent missing of the aim of a liberal culture. If I understand the matter, liberal culture seeks to give a man such a general view of life and of himself as will fit him to go out into life with something like wide knowledge, a well balanced idea of his time and of his place in it. Farther than that, I conceive that a liberal culture seeks so to discipline the activities of the mind that, whatever line of life is followed afterward, it will find itself fit for, because it has got the mastery of its own machinery. Now the tendency which I speak of is that which is illustrated in the most recently promulgated curriculum for Yale college, in which, offering a wider field for election than has hitherto been customary in that institution, the faculty have ruled that such election must confine itself within certain distinct limits; that, if a study is taken, it must be pursued to a certain definite extent, and that, when one study is taken, certain studies in other lines of activity must be taken to offset it and round it out. This action at Yale indicates a tendency which is apparent more or less in most of our institutions. The investigation which Prof. Hanus of Harvard has entered on this last year will give us distinct and accurate data concerning the working of the elective system. We look for great advantage from the results of that investigation, and till those results are had some of us are waiting before making definite our attitude toward this tendency. In itself, however, the tendency is hopeful and gives promise of greater efficiency in college work.

The other fact that I am impressed with is a tendency to recognize the truly humanistic value of what I will call the newer learning. The time was not long since when the old humanism took to itself the sole right to the name, and the study of the Greek and Latin literatures and some associated topics was alone regarded as the approved means for a liberal culture. That day is long past, however, and we recognize that the education which suits our time must include much science and modern literature as well as the older studies. We do not any longer apologize for the introduction of the study of the sciences, pure or applied, in

our liberal curricula; we recognize that they belong to the enlargement of the man and to his fitting for the life in which he is to be. Therefore, I believe, we are coming to a place where we will recognize that the new learning, the learning which has captured our generation, which is in large measure a product of the 19th century, has a claim on us as far reaching and as commanding as the new learning of the renaissance had on the teaching and the learning of that age. Therefore it is that many of our colleges are feeling the incongruity of offering the degree of bachelor of arts only to those who have pursued their studies according to the dictates of the older humanism. We are more and more ready to recognize also the studies of the newer learning and to confess that it is a useless multiplication of titles to differentiate among graduates from our college courses between the bachelor of science and the bachelor of philosophy and the bachelor of arts. Let us, if I may add exhortation to comment, let us welcome the tendency to recognize all liberal study in preparation for that degree which by tradition and common consent marks the liberally educated man, and be glad that the higher schools as distinct from the secondary schools and from the universities, or the highest schools, will set up as their aim to instruct their students most completely and most largely concerning the life which they have to live, and to develop their mental faculties most effectually by means of the learning which belongs to their time. This does not eliminate the study of the older literatures and the older history. It simply makes them part of the broad field which education has for its domain, and they still have a large mission to perform to the men and women in our generation who are not in a position to pursue learning into its sanctuary, under the guidance of men like Dr Hall, but who still desire to enrich their lives and enlarge their view by what we know as a liberal culture. These tendencies, therefore—the recognizing of the humanistic value of the new learning, and the regulation of the freedom of election of studies by students—are to me as hopeful as they are manifest in the higher or college education of our day.

Dr A. E. Winship—At the 25th anniversary of the founding of Boston university Pres. Eliot of Harvard said: "Boston university has made greater advance in her first 25 years than Harvard college made in her first 200 years."

30 years ago any young man could have taken from Harvard college or any other educational institution in America in four years all that it had to give, while today one can not get a twentieth part of it in that time. Then the lad was for the university, now the university is for the youth. When Oregon planted her vast apple orchards, she was paralyzed to find them ruined by pests, and issued an edict requiring every owner of trees to protect them, but the law was inoperative. Then the state placed a fine on the man that put on the market defective apples, and immediately every man sought the most approved means of spraying his orchard. The edict has gone forth that the university is to be judged by the soundness of the fruit it puts on the market. Even classic Harvard realizes that its prosperity depends, not on its dead languages, but on its living issues, and her professors are keenly alive to the opportunities for employment for her graduates, and they make themselves advance agents for the prosperity of her young men. One of her professors, for instance, said to a young man from Chicago: "If you take this four years course, you will find ready employment." He took the course, and as the time for graduation drew near he saw no evidences of any interest in his case, but in commencement week he received a letter from the president of one of the leading establishments in Pennsylvania saying: "Prof. — of Harvard recommends you highly. You can come to us any time you please between now and September, and you will find employment awaiting you." That is a sample merely of the classical appreciation of the importance of putting good products on a good market.

Railroading is now one of America's leading interests, and in consequence an eastern university put in a railroad department. The students built a locomotive, put all the parts together, finished every bearing to perfection, polished the brass to the limit,

and rattled off their knowledge of their product. But they never got up steam, never moved a wheel. It was the University of Illinois that dared to get on without a show locomotive, but made a dynamometer car, and sent the senior class in the railroad department out to live on the Illinois Central railroad for weeks at a time, measuring every conceivable phase of track grade, power, resistance, brake and wheel. Then the immense Big Four system urged it to send the next senior class to that road; and now the New York Central issues a Macedonian cry for the seniors of the University of Illinois to come over to the land of Harvard and Yale, Columbia and Cornell and give them scientific enlightenment on railroading.

Where did the University of Illinois get the wisdom and courage to abandon the show locomotive and get out on to the railroad, with her multitude of instruments for scientific measurements? She came here to Albany for her president, and to a Massachusetts normal school for the head of her railroad department. Neither Pres. Draper nor Prof. Breckenbridge ever received the regulation classical training, but they have sent the student membership of the University of Illinois from 800 to 3000, and the appropriations from \$300,000 to \$900,000 in six years, and they have taught the greatest railroad in the world to come to them to learn how to take Pres. Eliot and Seth Low to the Pan-American in the most scientific manner.

These classical institutions command the admiration of the world, and yet they do appear very ridiculous at times and they must enjoy laughing at themselves. Think of a college with a regulation that no honorary degree can be given in the absence of the person honored, even though the dangerous illness of a wife or the funeral of a son makes it impossible. It looks very much like making a show window model of some distinguished foreigner or American for university advancement. It is a delightful custom for a historic institution to honor a worthy leader, but a locomotive for show purposes does not make a railroad department, and an invitation from the New York Central railroad to a university is a higher honor than the acceptance of a hundred

LL.D.'s amid deafening applause. The university is for man, not man for the university. A flash of power is worth more than any reverberation of honorary degrees. It is the lightning and not the thunder that does the execution.

In brief the tendency of higher education is to change standards. It is so easy to get millions from legislature and trusts, so easy to run up a student membership of 3000 or more, that neither endowment nor size can now be a university standard. The question now is as to what university men do after they leave college, not what they have done while there. Unless a man makes a record by the time he is five years out of the university, he had better never refer to the fact that he has been there. Speaking educationally, there are several processes now evolved for providing doctorates for teachers, and this is well, for they are as deserving as statesmen and men of letters of the same rank, but an educator with a doctorate, and without a position to match it, is infinitely worse off than a man with the position without the doctorate. Not an educational position worth while now goes to a man because of his degree. Radcliffe, Wellesley, Mt Holyoke, and Bradford chose women of power without titles, two educational positions in New England that pay a combined salary of \$12,000, recently went to men with records, but no degrees, and the Boston school board spent two months urging Miss Sarah Louise Arnold to retain a \$3750 salary when they could have had a score of doctored women at their own price. The standard for a university is to provide men and women who can do things worth while better than other universities can do them, or at least better than the school of life experience provides.

Formal discussion

Pres. Andrew V. V. Raymond—I am down on the program, you will observe, for a formal discussion; but how that should differ or can possibly differ from the kind of discussion we have already listened to I am at a loss to tell. Perhaps the difference is in the allotted time. I am given 10 minutes instead of 15 or 45.

I am not certain whether I am to discuss the subject or the preceding addresses; not that these addresses have not dealt with the subject, in fact they have exhausted it, but then there is a distinction. If I speak on the subject, I can be impersonal. If I speak on these addresses, I may have to antagonize somebody, which I never like to do, so I think I will speak on the subject with only an incidental glance now and then at the speeches.

I want to say that I have been intensely interested in the range of the discussion this afternoon, as well as in the general nature of the discussion. I belong to those who believe that in politics and in religion, in business and even in education we are really advancing, so that I can not view with alarm any of our well defined and well established modern tendencies in the educational world. That does not mean that I like these tendencies. I like old things and it is difficult for me often to separate my judgment from my personal feelings—my personal inclinations. I believe that we are advancing; nevertheless I do not like some of the ways in which we are undoubtedly advancing. We do well to remember that in educational work, as in all other work, there are a few primary forces, and all progress comes from a combination of these in new forms or the application of these to new ends. Reference has been made this afternoon to the steam engine. The principle which lies at the heart of the steam engine is simple and has never been changed since the first engine was made, and all development of the steam engine has been in the application of this simple principle in new directions and the combination of the forces which it represents in new forms. So I think it must be in our educational work.

Now what are the things we are striving for in education? This search for truth, as Pres. Rhees said, does not enter into our work in the college, in the higher education as distinguished from the highest education. What are the primary principles, the things which we are trying to develop and which we must recognize? I think there are three, though I may be wrong in this. The first is that the mental faculties must be developed by exer-

cise; the second that the mind must be enriched for growth; and the third that for efficiency all these mental powers must be directed. Now all progress from the beginning of educational work has been simply in the method of applying these three principles. We recognize as fundamental and as essential this first principle, for instance, that the mental faculties like all other faculties must be developed by exercise. How this development shall take place or be brought about, what kind of exercise shall be given, is one of the practical questions which each generation seems to answer for itself. I am among those who believe in the value of what we call disciplinary studies. I know that in this I oppose a modern theory that all work should be play, that our young people should be led along lines only of their own choosing, or lines which represent an intellectual delight. Though theoretically that is true and right undoubtedly, thus far I find it pretty difficult to get able teachers or professors who are able to make all subjects or any one subject so attractive to all people that it becomes an intellectual delight to follow in that particular line; and so long as this is true a number of our faculties will have to be developed through what we call disciplinary processes, doing things which we do not like to do. I can not help feeling that the tendency to disregard this is a tendency in the wrong direction, for the simple reason that what we are training people for is life, and life has a great many disagreeable duties, and the man who lives best is the man who has schooled himself to do what he ought to do whether he likes it or not.

Take the second principle, the growth of the mind depending on its own enrichment. There are many studies which enrich the mind, others that train it. I do not believe that we shall go far beyond this fact, that there is no subject which so enriches the mind as language, because language is the vehicle of thought and brings to the mind constant suggestions, ideas which can not come from the study of any other subject. I appreciate the value of scientific study, its disciplinary value, its enriching value, but it appears to me that no study we have yet undertaken

compares with the study of language for the enrichment of the mind.

Third, for efficiency, the mental energies must be directed. I was very much interested in what was said by Pres. Rhees about this new tendency to bring elective studies into some form, some resemblance of continuity at least. Men come to us from preparatory schools where the great aim has been to get so many regents counts, no matter how they were obtained, presenting themselves for admission to college with the idea that a 60 count certificate must certainly admit them. Examining this certificate, we often find that it represents an excursion here and there in many directions over the whole field of human knowledge, but that no one subject has been followed continuously enough to give anything like mastery, and that therefore there is no intellectual fitness to take up the regular work of the college course. This has brought home to me the evil of scattering the intellectual forces and the need in the future of directing these energies if we are to obtain the highest efficiency.

After all, what are we trying to accomplish by education? We are trying to fit men to live, not to gain a livelihood but to live and for that we need the human element above all things else so that the tendency that has been very marked of late, I think to put truth above the man, truth above the teacher, is a tendency in the wrong direction, and it will be righted only when we shall make man and the humanizing element in our instruction supreme.

Prin. Walter B. Gunnison.—It would seem that the selection of a man whose interests and work lie in the line of secondary education, to discuss the tendencies of higher education, was an indication that the secretary had not exercised his wonted sagacity. Yet he probably realized that to determine fully the drift of affairs in higher education, it should be viewed in the light of the experience of those who are not a part of that education itself. The movement of a ship, that is being driven about by divers winds and currents, can be determined most accurately by the seamen on board by use of the plummet and line, chart

and compasses; yet they can also be determined in a general way by those who are watching the movements from a fixed point on shore. So from the standpoint of a secondary man, I shall call attention to a few points which indicate the movement and tendency of the educational forces above us.

In a general way I should characterize the whole drift of the higher institutions as helpful and encouraging. The general awakening that has touched every department of educational endeavor, seems at last to have reached the colleges and universities, and they are now taking a rational place in the system of national education. I say this carefully. While there is a tradition that all advances in education proceed from above downward, I feel safe in asserting that the great awakening of the last few decades has been largely from below upward. The wonderful organization and development of primary education with its careful supervision, its kindergartens and manual work, have modified very much the instruction in secondary work. The articulation there has become reasonably accomplished, and now the same process is rapidly being effected between secondary and higher institutions.

This is notably illustrated by the accomplished work of the association of colleges and preparatory schools of the Middle states and Maryland. For years the whims of individual colleges or professors have placed on those secondary schools that were obliged to be preparatory rather than educational organizations the enormous and discouraging work of having as many different lines of preparation as there were institutions whose instruction was sought. By the recent establishment of the uniform series of examinations on the part of the colleges, examinations which have been carefully made with reference to the work done in the secondary schools, a great step has been taken toward an intelligent and coherent extension of educational facilities.

The broadening tendencies in higher education, too, have been very manifest. We use many figures of speech to illustrate the process of education—the river with its tributary streams, the

pyramid; but to me the most nearly accurate is that of the mountain rising from the plain till it towers among the clouds, its summit always inaccessible and perhaps indiscernible save for the occasional glimpse to the eye of genius. The fertile fields and foothills, teeming with life and with every form of industry, may well picture the work of primary education, the great base on which all else rests—the most important and extensive part of the entire mountain. Above this would be the belt representing secondary education—only a little above, differing only in degree from the mass below and a very essential part of the great base. Above all this comes the portion occupied by the higher institutions. Between this portion and that represented by secondary education has long been apparently a stratum, unoccupied, save perhaps by clouds, which have served to shut off the vision of one from the other. Too often the upper portion has had its home and field of endeavor far beyond the line of vegetation, and from that arid belt has come little to interest and quicken those below. The men engaged in the upper work too often were clad in skins. They let their hair and beard grow. They were engrossed in affairs entirely beyond the world and its great movements. Like the boy who passed through the Alpine village, bearing through snow and ice the flag with “Excelsior” on it, the great universities have been striving to reach the heights beyond and looking forward, with no thought or care for their responsibilities toward the world below.

It is not strange that a cry has often arisen from the great captains of industry, that higher education unfits one for the struggle with the world; but there is a marked tendency to change the method and the aim. The leaders of the higher education, whose attitude has been simply a stargazing one, are beginning to look not only upward, but around and down, beginning to realize that all speculation and philosophy and attainment of the higher work are valuable only as they have some direct bearing on solving the questions of world interest. In short, the methods of the colleges are becoming more human, and their lines of effort are beginning to extend downward

through the secondary field to the most primary endeavors and interests. The rise of college and university settlements for the study of social problems, the modification and unification of entrance requirements, the establishment of courses that will fit on closely to any four years of work the secondary schools may do—all show the power of some regenerating influences in higher institutions undreamed of 30 years ago. Humanity has been recognized, and heroic efforts to bless and encourage it are, more today than ever, the aim and avowed purpose of our universities.

This tendency of helpfulness on the part of the higher institutions is nowhere better shown than in the very recent change of attitude of many of them in regard to the methods of education. It is only within a very few years that any of our leading institutions in any way recognized the existence of such a thing as proper educational standards and methods. If a man knew his subject thoroughly, he was regarded as equipped to teach. The fact was absolutely ignored that in order properly to instruct, one must know not only the subject *that* is to be taught but also the subject *who* is to be taught; that all education, to be effective, must be adapted to the conditions; that, while the principles underlying the teaching in kindergartens and universities are the same, the methods and objects are widely different. How many of the classes in our secondary schools have been stupefied and deadened by the transference to these schools of university methods and practices—good in their place—through the lack of appreciation of the secondary conditions by newly appointed university doctors and graduates. But, thanks to the broadening tendencies of the day, we are now having candidates whose ripe scholarship has been supplemented by a study of the problems of secondary education, under men who have had wide and successful experience in this line of work.

Again the tendency of higher education is to take a broader view over the whole field. Education seems to have a truer and fuller meaning than ever before. More stress is laid on character than on Greek, the brawling contentions between "Town and gown" are ceasing in all reputable institutions. To be a matri-

culate is no longer a protection against the service of a civil or a criminal process. Athletics no longer is the province of the paid coach or professional gamester, but is the solicitous concern of faculty direction. The college man must not only possess knowledge of books but must possess the spirit of the gentleman. These changes, not all of long standing, indicate conclusively to those of us who are viewing the movements of higher education from beneath a tendency which promises much for the future of education. They are all upward and in the line of intelligent, human appreciation of the needs of the community and of this age of progress of which we are more and more an essential part.

General discussion

Prin. Daniel C. Farr—I wish to say that in my attendance at this convocation of 23 consecutive meetings it has never been my pleasure before so fully to enjoy an address as I have enjoyed Pres. Hall's this afternoon. It is indeed an oasis in the desert. I do not allude to the other speeches this afternoon as deserts; but, when we consider the tendencies of education in our day toward the material, to have a man stand on this floor and plead for the spiritual, the mental, the noble, was grand, and I trust that every one appreciates it. The day was when the highest representatives of our colleges were men selected to teach and inspire, to lead men to high and noble things along the line of truth; they were not sent forth into the byways and hedges, picking up money to be put into the coffers of the institution. And I say without fear of contradiction that this tendency is bad and ought to be corrected; that men ought to be selected for the heads of these institutions of higher education for education's sake, and not those men that are training a lot of men to be shrewd and sharp in business. We must have money in our higher institutions, but, in the name of all that is good and true and educational, let business men be employed as treasurers and sent forth to raise the funds, and let the representatives of education be educational men and be permitted to exercise their functions as educators. I believe that that is what the 20th century

needs more than anything else. The young men look on the presidents of our colleges going about and emphasizing the great gain to business, and they think that that is the object and end of it all. I know that these colleges are raising up a class of men that place money ahead of everything else and regard true success as the ability to get money. Now who does not know that the world today is rating our Edisons higher than our Emersons, the man that lights our houses higher than the man that lights our souls? That ought not to be, and in the philosophy of Dr Hall it will not be; and therefore I beg of this convocation today, in their thinking and in their action in the future, to try to apply that lesson for the safety of the educational interests of this great land. Not long since I heard a clergyman say that he could not preach on Sunday without interruption because the wheels of the mills made such a tremendous racket. Now Pres. Hall's philosophy of education will stop those mill wheels on Sunday: the philosophy of other, so-called educators will tend to double their speed. Which do we prefer?

Vice-Chanc. Doane—I think I may be allowed just a moment to say that there has to me been only one single theme running through the whole of the discussion this afternoon, and that has been the presentation in the clearest, strongest and most desirable way of the very highest, best and truest systems of education. If it has lacked the element of variety at all, it has lacked it simply because the speeches and the addresses have every one been on a uniform level of, I think, most unusual ability; and I am sure the convocation will agree with me, first that in the selection of the speakers the secretary has shown his usual sagacity; and next that the speakers have all put us under very great obligations for their willingness to come and give us a real intellectual treat, which has overcome, to a great extent, even the sense of the extreme height of the temperature.

Tuesday evening, 2 July

**THE CONTRIBUTION OF OUR HIGHER SCHOOLS TO THE
LIFE OF THE NATION**

BY PRES. WILLIAM H. P. FAUNCE, BROWN UNIVERSITY

The life of the nation in which we are citizens has undergone a swift and permanent transformation as we have passed out of the old century into the new. The beginning of the 20th century was not in 1901 or in 1900; it began with the booming of Dewey's cannon in Manila bay, in that battle which was in itself not so great as at first we thought, but in its results was greater than we yet dream. For through that battle America passed into a consciousness of world-wide mission. The ship of state on that day, to use Kipling's phrase, "found herself." Sinking a few Spanish vessels manned by undisciplined gunners is a victory whose glory we may discuss. The acquisition of tropical islands may be the acquisition of perplexity, expense and bloodshed. But that battle, for weal or woe, was the end of an era. It ended a century of political development and ushered in an industrial age. It ended a century of struggle for religious freedom, and ushered in a century of the application of religion to the lives of men. It ended a century of sectionalism in America, culminating in civil war, and cemented forever north and south and east and west. It ended for America a century of isolation and provincialism, and gave her an undesired place at the council table of the civilized world. It transferred the seat of financial and industrial supremacy to the western continent, and made the future of America the supreme concern of the modern world. And if, as we who are here tonight solemnly believe, the future of America depends mainly on the education of her citizens, and that education rests in some measure in our hands, then we are honored with the most splendid opportunity that can come to men.

Bliss is it in that dawn to be alive,
But to be young is very heaven.

No school therefore can be judged today without asking: What is its contribution to this eager, expanding, tumultuous life of our time? Here we are all utilitarians. We agree that a school should be judged, not by its conformity to a traditional pattern, not by its popularity, not by its brilliant individual graduates, but by its total contribution to the national life. By the founders of the nation our schools were founded, in its constitution they are recognized, by the nation as well as by the states they are exempted from taxation, through the nation their graduates are scattered, and to the nation they must justify their existence by ministering to our deepest needs.

This view that education is a means to an end is supported by the two great classic definitions of education given by John Milton and by Thomas Huxley. Mr Huxley's elaborate and noble definition, which we have not time to quote, may be lacking in clear reference to social welfare; but Milton is clear and definite: "I call a complete and generous education that which fits a man to perform justly, skilfully and magnanimously all the offices, both public and private, of peace and war." Education is thus the great agency through which society purposely modifies itself. We are not content to leave the future of our country to blind evolution. Evolution has produced the hyena as well as the horse or the camel; it fashions the outlaw as well as the saint. But, when society attempts so to direct its inherent forces as to produce a given result, when a section of humanity deliberately says: "We will be different 20 years from now," they begin the work of education. Any reform which does not base itself in the education of the people is but a virtuous spasm. Any church which does not pursue educational methods is but a recruiting station, powerless to conduct a campaign. Any state which neglects its schools is ignoring its own future and sinning against light. The man who deliberately sets himself to make some portion of the world fairer, more intelligent, richer, nobler in 1920 than it was in 1900, is the true educator. He enters into the goodly fellowship of the teachers and leaders of mankind, and his own private petty task assumes world-wide significance.

Be thou a whole ; or, if thou canst not bear that part,
Be part of a whole and serve it with a faithful heart.

One great service that the schools of this country are rendering to the republic is that they minister to national unity. The 16,000,000 pupils in our public schools constitute an army of portentous power. If the teaching of this host of pupils were conducted in several different languages, if in some schools were inculcated the ideals of law and of justice which have prevailed in the Latin races and in others the peculiarly Anglo-Saxon ideals, if in certain schools Calvinism were taught and in others agnosticism, our school system would be the greatest disintegrating power in the land. But now it is visibly the organ of unification. On the children of our immigrants the school system acts as the digestive and assimilative apparatus of the body politic. It is not necessary that any American minister of instruction should be able to take out his watch and say: "3,000,000 children are at this moment reciting Latin." That is the unity of the staves in a barrel, not the unity of the branches of a tree. It is rather a common language, a common political tradition, a common social ideal, a common love of liberty and law which constitutes what we significantly call "the common school." No steel network of railways can hold together states intellectually and socially dissevered, discordant and belligerent. No apparatus of telephones and telegraphs, no mail service however swift, no federal officials however powerful, can preserve the significance of the *e pluribus unum* when the plurality of our interests is daily becoming more obvious and more dangerous. A community of tradition and interest and aspiration, a common "psychologic climate" for the years of adolescence, is the only guaranty of national unity in the future.

The advocates of private and parochial schools have sane reason in their contention, in that our own public schools lack as yet certain elements which education should include. But these advocates forget that, if the day ever comes when each church shall separately educate its own youth, when each nationality in America shall educate in its own language and each class in

society shall have its class schools, national disintegration will have begun and disruption can not be far away. However deficient our schools may be in sympathy and vitality, they have performed and are performing a magnificent service in giving to the young people of Albany, Kansas City and Seattle essentially the same mental environment during the most receptive and sensitive period of their lives. To erect a flag pole in every school-yard, and hoist a piece of bunting, may seem a mere spectacular display; but whoever has heard the children of Hebrew immigrants in lower New York salute the flag and swear to defend it has rejoiced that what was once "the last refuge of a scoundrel" is now the first vow of the American citizen. That essentially the same love of liberty, the same reverence for law, the same craving for knowledge, the same attitude toward our institutions, the same moral principles should be inculcated in millions of young Americans will do more than all uniform legislation or all industrial combination to maintain the unity of the republic. And, though in our higher schools a smaller number are reached, the really greater influence may be exerted. What is merely a "climate" in the secondary schools becomes in our high schools and colleges a conscious and deliberate purpose. Nearly the same methods of study and often the same textbooks, are used at Cambridge Mass. and at Berkeley Cal. Students migrate now from one institution to another with almost as much freedom as in Germany. No college would permit its faculty to be composed wholly of its own graduates. The methods of Johns Hopkins have become the methods of American university life. Professors are called back and forth, and many of them have deliberately resolved never to identify themselves with any one institution. The New England college has reduplicated itself in Oregon, and certain students at the University of Chicago regularly take their winter term of work at the John B. Stetson university in Florida. Connecticut sends her college men to open up the Western Reserve, and the best puritanism of New England throbs through Oberlin, permeates Colorado college, and plants schools on the shores of the Pacific.

And these colleges, springing out of a common need, are now reaching after a more visible unity. By methods of affiliation, by establishment of common boards of examination or certification, by repeated conferences of presidents and professors, by associations of teachers, by constant comparison of methods, our higher institutions are steadily unifying their forces and concentrating their attack. These higher schools are the great source of our national inspiration today. The unfailing remedy for pessimism is to attend a series of college commencements and hear the army of graduates cry, "We, who are about to live, salute you."

In the expansion of America we must therefore place heavy emphasis on the work of education. Gen. Kitchener's call for a university in the Soudan has been paralleled by Mr Atkinson's call for 1000 teachers for the Philippine islands. If education in Manila or Havana or Honolulu is left to ecclesiastical sectionalism, or to enterprises whose motive is private gain, these new possessions will remain forever alien, suspicious, hostile. What the planting of the University of Strasburg, surrounded by admirable German schools, has done to Germanize Alsace and Lorraine, that will the American university and the American school do to Americanize our new dependencies. Let our national bureau of education become not merely a recording but an administering body. Let it have powers commensurate with its ability and its opportunity. Let the education of these new millions be along lines that civilization has shown to be effective in making citizens. We will not indeed strive to Americanize the orient in manners and customs. We will not build New England meeting-houses in the jungle, or insist on frock coats under tropical skies. But we will insist, though it requires a century to achieve it, that, whether the constitution follows the flag or not, the flag shall be followed by humane laws impartially administered, by civil and religious freedom, by honesty in official position, and that the bells which ring in American rule shall "proclaim liberty throughout the lands to all the inhabitants thereof."

A second contribution of our higher schools to the nation has been in moral seriousness. The university with which I am connected has held its commencement exercises for 125 years in a noble, old colonial meeting-house. On the church books the record may still be deciphered, "This meeting-house was built for the worship of God and to hold commencements in." A separation of educational life from moral and religious life was then plainly inconceivable. The mottoes on the seals of our eastern colleges, "*Christo et ecclesiae*," "*Lux ac veritas*," "*In Deo speramus*," all breathe the intense moral earnestness of the founders. The founder of a college in that day was not on a holiday excursion.

He wrought in sad sincerity ;
Himself from God he could not free.

When Dartmouth was little, there were those who loved her. When Bowdoin had no laboratories, she was beloved as Berlin and Leipsic never will be loved by their graduates. Our early American colleges were founded, not merely in the spirit of intellectual curiosity, not to advance scientific research, but in a spirit of enthusiasm and devotion to humanity which has never been paralleled in any other country. The same spirit that sent Judson and Rice to Burmah sent Mark Hopkins to Williams and Anderson to Rochester. Thomas Jefferson drew the plan for the University of Virginia with the same seriousness and deep devotion with which he drew up the declaration of independence. He knew that independence without education is only obstinacy. Three fourths of the signers of the declaration were college men, and in the American college they had imbibed their love of country and of right. Colgate university (once Madison university) in this state, began with 13 sturdy men sitting in one room, when they passed a set of resolutions and each man in the circle placed one dollar on the table as his contribution to collegiate education in the Empire state. Their purses were small, but their hearts were great. Our eastern colleges were born poor in goods but rich in faith. Their professors often belonged to the noble army of martyrs. Their students sometimes "cultivated

literature on a little oatmeal." Their curriculum was small and narrow; but all through it breathed the intense devotion of founders and teachers who cared little for wealth or position, who looked down on most of the ambitions of the world, and held themselves always ready to serve their country and their God. The Haystack at Williamstown was not as expensive as a laboratory, yet quite as useful. In no other land in the world have the institutions of higher learning been founded in such devotion and sacrifice.

We are told that our colleges lack in "productive scholarship," and so they do. I would not say one word that could even *seem* to imply contentment with our present range of study. But our critics may forget that these colleges were not founded primarily for the study of the dative case, but for the training, through the study of datives and some other things, of men for the service of the state and the church. When Lincoln formed his great war cabinet, he made it up of men who were with one exception college graduates. The colleges that could produce such men as Seward and Stanton and Gideon Welles and Salmon P. Chase should not be altogether condemned for want of "productive scholarship." Our present army of new-made doctors of philosophy, each armed with a bulky thesis exploring some new square inch of *terra incognita*, deserve our congratulation and shall have it; but our best wish for them is that they may serve their country, their generation and their God as zealously and efficiently as did the graduates who have gone before them in the endless procession of educated servants of the republic.

These early colleges educated not only their students, but their constituency. If they had never graduated a single student, they would have rendered lasting service by inducing whole communities to live for ideal ends and to sacrifice and toil for the discovery and promulgation of truth. Much is said today about the new type of college president, as if he were merely a money-getter and foreman of a factory. This ideal of the presidency has been conspicuously and deservedly rebuked within a few weeks by the election of Ira Remsen as president of Johns Hop-

kins university. By that act America has said to all the world, "Scholarship first and endowment afterward." But the truth is that the college presidents of two generations ago were forced to search for money to meet material necessities as none of their successors will ever do. They collected funds in such small sums that little attention was called to this side of their work. They took up collections in all the churches of their own communion, they went from door to door when doors were far apart and communication was difficult. They wore themselves out in providing for the modest equipment they needed. But they held so high an ideal of scholarship and character that we forget their labors and think only of their results. May their successors be as true to the ideal and spiritual elements in university life!

If our colleges are to continue to render their service to the country, they must beware of yielding to certain doctrines which would deprive collegiate education of its intellectual seriousness. The elective system we can not here discuss; but the elective spirit, which, like the Jack Horner of the nursery, proposes to pull out the plums rather than to eat the pudding, has achieved a dubious success with children, and still more dubious results in training men and women. Life has many disagreeable tasks, and one great blessing conferred by the old education was the ability to do the irksome, difficult and even repulsive without whining or rebellion. When I recently said to a primary teacher, "What provision is there in your method for teaching children to do the disagreeable tasks of after life?" she answered, "None; there are no disagreeable tasks in life to one who views it rightly." This transcendentalism is lofty indeed. But most of us thank heaven that in the days of narrow outlook and wearisome drill we learned at least to keep courage in the face of obstacles, and patience under monotony, and resolution to rise after falling, and that something of the New England granite was in the training of the New England teacher. We must not invent difficulties for pupils; but we must not hide their existence. An education which relies mainly on games and toys *may* do for the kindergarten, but it most emphatically will not do for our

higher training. We need an entirely new exposition of the doctrine of "interest," as distinguished from mere inclination or caprice. We dare to affirm that the chief interest of even a college freshman, if we can get at that interest and develop it, will prove to be, not in baseball or boating, but in mental achievement, in moral leadership, in the service of the state.

This seriousness has constantly shown itself in the steady and successful assertion of legitimate academic freedom. If even our colleges and universities lose that freedom, the last stronghold of liberty will have vanished. But it has been settled that they shall not lose it. The founder of a private proprietary school has a right to teach in it whatever he chooses—the veracity of the Koran, the truth of the Ptolemaic astronomy, the theory of phlogiston, if he will. The fact that he teaches such doctrines is a reproach to his intellect rather than to his character. But a university which would take honorable place as a public institution, appealing to the public for aid and professing as its supreme aim the public welfare, can not teach the doctrines of a sect, the personal views of a founder, or the opinions of prospective contributors. Its aim is not to inculcate "views" of any kind. Its aim is rather to inspire students with love of truth, and give them a right method in seeking truth and adequate equipment for finding truth. It is to send forth men of candor, of well stored minds and balanced judgment; men who, whatever theories they hold, shall hold them frankly and defend them bravely. If to this principle of freedom of speech we add the equally important principle of responsibility for speech, responsibility to the institutions we represent and to the public whose confidence we value, we have a sound and sensible basis for our academic future.

The third contribution of our higher schools is the most obvious of all—they have given to the state trained intelligence. The laws of nature are inexorable. No morality of intention, no pious aspiration, will enable a nation to survive in the gigantic competitions of modern life, unless it is constantly advancing in intelligence. First we must grow in mind, and then v

may hope to grow in wealth, power and prestige. Great wheat fields, great areas of coal and iron, enormous water power, furnish no basis for national greatness. South America is as rich in natural resources as is North America. But South America is mentally in infancy, and looking to the trained intelligence of Germany for its development. England fears the sign, "made in Germany," because she knows that behind the sign are the best technical schools of the world. Recently one of the largest Rhode Island manufacturers, having erected a new bleachery, looked over the whole country for a man as foreman. He finally selected a Hungarian to superintend hundreds of American workmen, simply because our schools can not give the training required. We are coming to see that growth in mind must now precede farther advance in manufacture. Our students must master the processes of nature and understand natural laws, they must apply mathematics and chemistry and physics to the industries of our age, they must be familiar with the great problems of mechanical and civil engineering, they must know how to utilize the great powers that now play around us untouched and often unsuspected by man. Every advance in technical education today is full of promise and potency. Many men who would never be awakened to intellectual life by the old college curriculum are roused to enthusiasm by the study of nature, her processes and laws. We can not possibly have too many educated men, but we may have too many men educated in the same way. Hence the differentiation of our higher schools is an excellent sign of the times. It is doubtful if we need any more colleges for literary and classical education for the next decade. Rather we need to strengthen and enrich those we have. But new technical and textile schools are needed in many sections of the country. The rule of thumb will not suffice. The old apprentice system is gone. Trained intelligence alone can guide the vast business interests of America in the years to come.

When we come to our professional schools of law, medicine and theology, we come to a region of experiment and debate.

But on one thing we must agree—on the duty of these schools to elevate the standard of intellectual equipment for professional life, and discourage all “short cuts” which involve superficial training.

One physician of scientific method is worth more to a community than 20 who are guessing and groping. One physician who can assist in purifying the water supply, in discovering the cause of an epidemic, in introducing better sanitation and hygiene, in preventing rather than curing disease, is of more value than a hundred who deal only with symptoms and surfaces. We do not need more doctors, but we need more doctor.

Perhaps the most conspicuous failure to render needed service in professional education is in the case of our theological schools. Their contribution to the life of the nation is not remarkable. They make small appeal today to the best minds among our college graduates. Isolated usually in some rural region where life runs slow, protected from the stimulus which arises from diversity of interests and from the constant search for new truth, they have been, with a few notable exceptions, the stronghold of intellectual inertia. The pathetic experience of Phillips Brooks in passing from the atmosphere of Harvard to that of his theological seminary is fully described in his recently published life. He found that he had passed from the atmosphere of truth-seeking into that of truth-defending, from breadth of sympathy into strict partizanship, and into methods of study discarded by the university 50 years before. This is the usual experience of students for the ministry. Such a training gives to the world ministers who are echoes rather than leaders. The condition of our seminaries leads many embryo ministers today to avoid them altogether, and to take instead the degree of Ph.D. at the university. But a few of our seminaries are awake to the danger and are undergoing a mental regeneration. They are allying themselves with universities and imbibing their spirit. They are not seeking to become universities themselves, teaching all conceivable subjects that a min-

ister may need to study. They are avoiding the danger pointed out by Pres. Hadley—the danger of “substituting poor political economy for good exegesis.” They are confining themselves to strictly professional work. But by insisting that no man shall come to them without a collegiate training, by infusing into all students the sense of ignorance, the passion for new truth, the candor and toleration and eagerness for knowledge which constitute the genuine university spirit, they are creating a new ministry in sympathy with the new age. Perhaps it may not be wholly invidious to say that no man is rendering greater service in this respect than Charles Cuthbert Hall of New York.

In the study of law and diplomacy the expansion of America imposes on us urgent duties. We have hitherto supposed that literary or social eminence entitled a man to represent us at foreign courts, and certainly our ambassadors and ministers have made honorable record in international diplomacy. But now we need administrators, equipped to deal with the complex problems that arise when one race attempts to control the action of another, and specially when the occident attempts to deal with the orient. We can not find competent administrators among men of small horizon and limited national sympathies. We need men of broad acquaintance with history, masters of modern languages, trained in economics and government, versed in social and municipal problems, who shall justify, if they can, that mysterious impulse which has led us so eagerly and jauntily to assume the white man's burden. Ignorance of the peoples we profess to help into liberty will inevitably lead to tyranny. We welcome therefore the establishment of schools of diplomacy and international law. We welcome studies in anthropology and the history of civilization and government, for without this training our attempt to administer the tropics will be both blunder and crime. A few years ago Benjamin Kidd popularized the view that a few favored nations in the temperate zone are to hold the earth and administer it. He of course would administer it so as to benefit

the less favored races; but he would administer, and his disciples are not careful about the benefits which would come to the tropics. Nietzsche has left behind him thousands of followers, applauding his doctrine that "it is our duty to help on the elimination of the unfit, provided only that we use up the unfit in the service of the strong man that is to be." On every side we see the tendency to substitute the cosmic order for the moral order, and to deal with inferior races as nature deals with an inferior shrub. This philosophy, now affecting all our philanthropy and all our statesmanship, finds its boldest expression in Dr McKim's *Heredity and human progress*, a book of which this sentence is the keynote: "The divine method, plainly revealed in nature, of dealing with a feeble or pernicious life is to destroy it." It might easily be shown that this is not the dominant method of nature. But we are not now concerned with any biologic or ethical theory. We are concerned with a statesmanship which threatens to discard all the great ideals of national freedom and international comity for which the 18th century struggled, and by a hasty inference from a superficial biology to conclude that we, as the advance agents of American prosperity, must help to eliminate the unfit from the earth. This is the doctrine of every tyranny the world ever saw. It is the philosophy of a state in which Bismarck is king, Cecil Rhodes prime minister, and Kipling the poet laureate. It is a philosophy which can not face the words or the life of Washington, Jefferson and Lincoln—equally un-Christian and un-American.

To lift these alien races into light and peace and liberty, we must realize that they are now children, and the problem is essentially one of education. We can not go to them and establish at once the New England town meeting. We can not introduce by the waving of a wand all the results that Roman law and Greek literature and the Christian Scriptures have wrought out in the 19 centuries. We have to deal often with

. . . silent, sullen peoples,
Half devil and half child,

To lead these peoples step by step into self-government, freedom and knowledge demands a true pedagogic method. More will be done by the schoolmaster than by the colonel of the regiment, more by teaching ideas to shoot than by shooting the men who have ideas. No man can administer the government among such peoples unless he can understand Fröbel's saying, "Come, let us live with our children." Even though the children be foundlings, left on our national doorstep by departing Spain, we must live with them, study them with patience, get their point of view, see how their present has grown out of their past, and then we may be competent to construct their future. When I appointed recently three college men for teaching positions in Manila, I felt that our government was beginning to grasp the true solution of this problem. The best sons of our universities must grapple with the history and psychology of these tropical peoples, and go forth not to exploit, but to lead. Our people have been bewildered by sudden responsibility and dazzled by extraordinary opportunity. But common sense, Christian principle and the higher education will suffice for the emergency. The Fourth of July ought to be this year, not a day of pyrotechnics and pulmonary patriotism. It ought to be a day of searching our own hearts, of highly resolving to help our new national children into knowledge and strength, and of prayer for the victory of universal righteousness, the prevalence of universal truth, and the reign of universal peace.

Vice-Chanc. Doane — I venture to say for the convocation that Pres. Faunce has capped the climax of a day of unwonted ability and power, by an address filled to the very brim with the great elements of American power, intelligence, patriotism and Christianity; and in the name of the convocation I thank him most heartily for what he has said to us here.

Wednesday morning, 3 July

Regent Pliny T. Sexton — I anticipate and share the disappointment and regret which you will feel when you learn that our great vice-chancellor, the good Bishop Doane, is not to be with us today. As we all know, his life is full—to borrow his expression, “full to the brim”—of multifarious duties. Their occurrence and recurrence and his faithfulness to them characterize his life, and today is bearing him far away from us for the keeping of an engagement of long standing. If I rightly read your thoughts, you are all speeding after him telepathetic messages of good wishes and grateful acknowledgments for the grace and uplifting helpfulness with which he has presided over your previous deliberations, and certainly his occupancy of this master's chair has been a vivifying inspiration to this summer school of the University of the State of New York. But it also makes it hard for me, for by his gracious rather than fitting selection I am to be your monitor here today.

PRESENT TENDENCIES IN TECHNICAL AND PROFESSIONAL EDUCATION

TECHNICAL, COMMERCIAL AND INDUSTRIAL EDUCATION

BY DEAN JOHN BUTLER JOHNSON, UNIVERSITY OF WISCONSIN

This paper will be limited to a review of the present tendencies in those kinds of public education which contribute to the building and maintenance of the higher forms of the industrial arts. These arts are of two general kinds, creative and distributive, and they are commonly grouped and denominated under the familiar words, manufacturing and commerce. These are the supplementary halves of the great circle of modern business. In a very true and proper sense agriculture and mining are today forms of manufacturing, so that all modern industry may properly be classed in these two great categories. Farming and mining are now reduced to exact sciences, and both can be carried on successfully today only by the aid of the most scientific mechanism. The farmer as truly manufactures his crops as does the man-

facturing chemist his manifold compounds. Each places his seeds or his elements in the environments in which nature can work and she does the rest. We are learning more and more of the conditions essential to the successful operation of nature's laws, and so are reaping larger and larger harvests from her bounty in all lines of manufacturing industry. Where a few years ago all was tradition and blind guesswork, today the light of scientific knowledge begins to illumine the paths of creative progress, and this light is shining more and more unto the perfect day which is rapidly approaching. The fundamental laws of mathematics, physics, chemistry, and biology which have already been established have changed manufacturing into an exact science. Whereas formerly success in this field could not be predicted, and every venture was hazardous, now success can be determined in advance with almost a mathematical exactness, provided the undertaking be prosecuted under competent direction. The sciences of economics, finance, transportation, and commercial geography, also, together with the more fundamental sciences named above, have rendered a like service to commerce, so that now in both of these great fields, which are daily becoming one and the same, certainty and assurance are replacing doubt and fear. For do not our railway and our steamship companies manufacture transportation as truly as a mill its product? And does not a manufacturer have to establish a sales department to market his wares? Today, therefore, all manufacturing is commercial, and all commerce is constructive. Every large concern of either class requires many expert agents of both classes to insure a successful career, and it is to provide this competent direction of manufacture and sale that the modern technical and commercial education has been established.

Educational methods hitherto satisfactory no longer adequate

In an age when manufacturing was limited to supplying the simple wants of the village or city, and when trade was confined to one's neighbors and townsmen; when all knowledge of the industrial arts was traditional,

and held as trade secrets, to be passed on from father to son as a precious inheritance or to be learned only by a long and costly apprenticeship; when science was as yet in its swaddling clothes with no prospect of its ever becoming the giant wonder-worker and industrial revolutionizer so familiar to us today; when 50 miles overland was an absolute bar to commerce and trade, and when one's intimate knowledge of the world was limited to one's own county, in those primitive, pastoral, peaceful days, formal schooling might well stop with the opening of a window to the soul looking out on the fair fields of literature, of a door through which it could communicate its ideas, and with the development of an orderly working through the science of numbers. In those days reading, writing and arithmetic served well the needs of a worthy citizenship, and what more was obtained in the way of schooling might with propriety be given to a study of the dead past, its speech and its literature, its manners and its customs, its sports and its sins, its delusions and its superstitions. But to name in the same breath the elements of this past education and the demands now made on the mental equipment of either a man of affairs or a woman of service, is to reveal, as by a flash of lightning, the glaring defects of the former systems of education for modern needs. Verily old things are passed away and all things have become new. The 19th century has given us a new world, and the 20th century must nurture, sustain, and develop it to still higher planes of accomplishment. To this high service are we called, and the responsibility rests with double weight on those of us who take on ourselves the duties of training the coming generation for their tasks. Our educational sins will be visited on the children of this commonwealth to the third and fourth generations. Fortunately we are alive to the demands of the situation. Matthew Arnold has said, "Americans think straight and see clear." I believe as a rule we do know a good thing when we see it, and sometimes we can discern the signs of the times and provide in advance for coming conditions. That is to say, we have a pretty clear hindsight and occasional gleams of foresight. Let us now examine

such evidences of foresight as we have incorporated, or are proposing to embody, in our educational agencies, in the fields of technical, commercial, and industrial education.

Advanced technical education

By advanced technical education is here meant that education which concerns itself primarily with the higher applications of the physical sciences to the requirements of the new manufacturing and commercial worlds as well as to the material demands of modern life, and is commonly called engineering education. Evidently the facts and principles of science can not be applied till they are known and fully understood. This higher technical education, therefore, must begin with a study of the physical sciences. Here we find the most important to be mathematics, mechanics, physics and chemistry. All these must be studied qualitatively to fix in the mind certain basal principles, and quantitatively to establish the laws of their operation.

Thus mathematics, including higher algebra, geometry, trigonometry, analytical geometry, and the differential and integral calculus, must all be mastered in a way to enable them to be used as tools of investigation, and not merely examined as interesting processes of reasoning. The engineer uses all these branches of mathematics as a carpenter uses his tools. The student who studies these subjects as ends in themselves, and never makes practical use of them may be likened unto a student of carpentry who simply studies the form, size, weight, material, and manner of construction of the tools of his trade, but never uses one of them in actual service. The experienced carpenter would tell you that he knows nothing about these implements as tools. He knows them only partially and as final products. So with the man who studies the various branches of mathematics as ends, and never uses them as tools. The man who studies algebra and the calculus as ends, knows no adequate reason for their existence, to say nothing of realizing their significance and importance. When, however, he finds these and the other branches of his mathematics are as so many effective instru-

ments with which to hew his way through the maze of mechanical problems which beset his pathway, both in the later years of his college course and ever after in his professional practice, the calculus becomes a fixed part of his mental furniture, a language in which clear ideas are expressed and conveyed with absolute accuracy and exactness, a universal solvent of involved puzzles, an equilibrium in both analysis and synthesis, the sole reliance in deriving laws from observed facts, and of predicting effects from given causes. In short, these branches of mathematics are to the problems in engineering what the alphabet and the vocabulary are to the literature of a language. The engineer feels, therefore, that the study of mathematics as an end is what the study of the alphabet and of the vocabulary of a language would be without ever using this knowledge in the study of the literature, and in speech and written composition, in which these are but the tools. It is no wonder a study of the calculus is so often branded as unprofitable, for the charge comes from the men who have never learned to make any use of this knowledge. And it is as reasonable to set men to teach young apprentices about tools who have never used a tool in their lives, but have simply examined, analyzed, and handled them, as to set men to teach mathematics to engineering students, who have never had occasion to make practical use of their mathematical knowledge. This is the position taken by the Society for the promotion of engineering education, but the mills of the educational gods grind slowly. In our universities the mathematics are naturally taught in the literary department, and the teachers are the products of the literary and pure science courses. The difficulty lies in the great dearth of men who, having been taught to use their various branches of mathematics, are willing to engage in teaching them. If they teach at all, they insist on teaching the applications of science rather than the sciences themselves. While there is a surplus of teachers of the pure sciences, there is a great dearth of competent teachers of the applied sciences. The time is ripe for men to prepare themselves expressly to teach in the engineering colleges. The teachers in these colleges should have a liber-

literary education, should have taken a regular course in one of our leading engineering schools, either as an undergraduate or as a graduate student, should be able to read both French and German technical literature, and finally should have had several years of actual professional experience. A year or two spent in a German engineering school would be valuable rather as giving an easy familiarity with German technical literature than as securing a kind of instruction not accessible at home. It is now commonly acknowledged by the German professors in the schools of engineering, that American engineering students have little to gain in going abroad except in the matter of acquiring one or more foreign languages. Indeed, in the practical application of scientific knowledge, in our shops and laboratories, we have a great advantage over them. Here we undertake, so far as possible, to let the student find for himself in the laboratory a practical embodiment and illustration of every fact, law and principle given to him in the classroom. This gives him a practical command of his scientific knowledge, and makes of it a working rather than an idle professional capital. In this particular the German schools of engineering are far behind us. They are now awaking to their needs, but they find great difficulty in remedying their defects. There it is the theory of the school that the professor knows everything, and the student knows nothing except what the professor reveals to him. Now the theory of a college laboratory rests on the assumption that the student can find out some things for himself. As this strikes at the very foundation of their system of paternalism, in both school and state, the method is not likely to make rapid progress. It is true that in physics and chemistry, and in other pure sciences, the laboratory method is there fully developed, but it has made very little headway as yet in the engineering colleges. The great testing laboratories carried on in conjunction with the schools at Berlin, Munich and Zurich, are state laboratories, in which the professor in charge makes investigations, or tests materials for citizens, as we do in our government station at Watertown arsenal, Massachusetts. The students get no practice in these great laboratories.

Returning now to the subject of teaching pure science to engineering students, the same strictures may be passed on the teaching of physics and chemistry to such students, as were expressed on the teaching of mathematics. These subjects should be taught quantitatively, and the emphasis placed on the more important portions. To be able to do this, the instructor must know something of the applications to be made in engineering practice of the facts and principles which he sets himself to expound. Knowing this, he can distinguish between that which is of vital consequence and that which is merely of passing interest, or which is merely illustrative of a general principle. Without this knowledge of the applications of his science, he teaches all subjects as of equal importance, reducing it all to a dead level of monotonous interest, with the result that the student slights it in the course, crams it up for examination, and is satisfied if he passes it without a condition. As little or no use of this knowledge was ever suggested during its acquisition, the student's interest in it was simply theoretic, and what little remains with him he is incapable of turning to practical account. In other words, since engineering consists in making practical applications of scientific knowledge, this knowledge should be imparted by men who know something of such applications. The truth of this proposition would seem to be self-evident. And yet, a large part of the science taught in our engineering colleges is imparted by men who know little or nothing of the uses this knowledge is to be put to by their students later in their course, to say nothing of their subsequent professional practice. And in our universities and mixed colleges the engineering faculty commonly has no control over the science departments. At the University of Wisconsin all those who give instruction to engineering students now form a separate and independent faculty, under the dean of the college of engineering, and, while many professors and instructors belong also to the literary faculty, the character of the instruction given to engineering students is now well under the control of the technical members of the

engineering faculty. This I consider an essential condition, and it is one of the tendencies of this kind of education. Many of our pure science friends feel that this frequent reference to the uses of scientific knowledge and laws degrades both the subject and the professor. On the contrary, the teachers of engineering maintain that it lends vitality and interest to the subject, specially for engineering students, and it saves the professor from fossilizing on the one hand and from comet-chasing on the other. We must not forget that for the engineer science is but a tool and not the final product.

I must not be understood as saying that the engineer is a mere user of tools. He is of necessity a scientific investigator. He should be taught the scientific methods of experimentation throughout his entire course, while studying the pure sciences as well as in their applications. In fact his most valuable college acquisition is his having learned how to learn. Since the engineer stands in the community as one to be consulted in the solution of new material problems, and since he is performing his proper social function only when he can solve such new problems safely and economically, it is patent that he must be a trained experimenter in order that, by a series of laboratory trials, he may master the unknown features of his problem before he begins to embody his ideas in expensive full-sized constructions. And this a good engineer always does.

In teaching the various applications of science in the several courses in the college of engineering, the schools naturally select those which are at once of prime importance in practice and which submit themselves most readily to classroom analysis and to laboratory verification. Here also the professor must hold closely to general principles of universal application, rather than to particular facts of local or of temporary interest. While the principles of economic design should pervade all his teaching, the ruling market prices for the given place and time can well be ignored. Economy of construction is now so universally recognized as fundamental in this country that the schools are not likely to err longer in the direction of ignoring

it, as they doubtless formerly did. But since all cost is finally a matter of kind of material and of quantity of labor, these may be fully covered without consulting the prices of materials in the daily market reports.

Aside from the study of the pure sciences and their applications to the various lines of engineering practice, our leading engineering schools give considerable attention to language. A reading knowledge of German and French is essential to one who wishes to avail himself of the current technical literature of Germany and France, and a correct and free use of the English language in both conversation and in composition is essential to any pronounced success among one's fellow men. It is very difficult to obtain all these language requirements as a condition of entrance, so that a considerable amount of language work is still done in the engineering colleges. Cornell university does now make this demand on the secondary schools, and, it is said, with entire success; and the other leading schools of engineering will doubtless follow suit as rapidly as they can bring their preparatory schools up to this standard. With the rapid increase in both scientific knowledge and in its applications, the field of instruction in the college of engineering is rapidly expanding. As it seems unwise to prolong the college period beyond the traditional four years, the only solution of the problem lies in the continual differentiation of the work into special courses. This means, of necessity, a narrowing of the field of instruction. To prevent this as far as possible, the schools are now offering short or introductory courses in collateral and allied technical subjects while giving thorough courses, both theoretic and practical, in the special fields selected. This tendency is now very pronounced in nearly all our leading schools of engineering. It is only practicable, however, where all the engineering work is grouped under one faculty, and where a helpful and compliant disposition is manifested by the professors toward the work of the other courses.

Concerning the anomalous position of our colleges of engineering when regarded either as professional or as undergraduate

schools, in that they undertake to be both at once, I can only say I can see little tendency to change this situation. Doubtless we shall have an increasing number of students in the colleges of engineering who have completed a part or all of a literary college course, but I see no prospect of this ever becoming an essential requirement, as it seems likely to become in law, in theology, in medicine, in teaching, in journalism, and in literature. The work of the literary college must be divided roughly into science, language, and the humanities. The science and the language (modern) the engineer must have, and the humanities he ought to have. But engineering differs from all the other learned professions in this, that his working world consists in the materials, the laws, and the forces of nature. His is the inanimate world, the world of dead matter. All other learned professions have to do primarily with men and the interests and institutions of men. Studies in the humanities, therefore, are to them of the very essence of a sound preparation for their professional practice. To the engineer these are incidents, and tributary only. Evidently any man is a better citizen and neighbor, and a more agreeable companion, who has this kind of culture, and there is no doubt whatever that this culture would contribute largely to the worldly success of any engineer, whatever his professional abilities in his own world of matter, but it can not be affirmed that this kind of culture would materially assist him in working out his technical problems. His bridges probably would be no safer, his engines no more powerful or economical, his electric devices no more occult or omnipotent. So far as serving society in his professional capacity, therefore, these humanitarian studies are not essential, and hence society can not and will not demand them of him. In the engineer's personal interest they are essential, but of this he must be his own judge. Naturally he does not see this necessity till it is forever too late for him, except by private study. In this way he can very largely supply this lack, and many engineers do so. Many more would do so if their professional duties were not so exacting. It would seem, therefore, that colleges of engineering

will always continue to remain at once both undergraduate and professional schools, and we might as well adjust ourselves first as last to this situation. This being the case, it is evident that the intimate cooperation of undergraduate schools of engineering with schools of letters and science, now found in the American universities, is a normal, a wholesome, and an economical one, and not a subject of legitimate criticism.

Advanced commercial education

With our expanding commerce comes the necessity of a world-wide commercial education. We are to be permitted, if not destined, to supply the whole world with a large proportion of its manufactured goods. How can we successfully carry on a cosmopolitan business with a merely provincial education? So long as this business was local and within the range of one man's observation and experience, it could be learned by a business apprenticeship, as manufacturing formerly was. But how can any one man, with a knowledge only of his mother tongue and of his own country, learn by experience to fill the various positions in a modern sales department, with agencies and branch houses in every civilized country in the world? While many things here, as in manufacturing, can best be learned in actual business, many other things can be well learned only in properly organized schools. Of such are the new colleges of commerce, of which that at the University of Wisconsin is perhaps the earliest and most perfectly organized American example. These schools have long been common in Europe, but their need has not been felt here because of our limited foreign trade. They have now become imperative, and we may expect to see them rapidly develop as thriving departments of all our leading universities. The one danger to guard against in the organization of these colleges is the making of them purely theoretic or political science courses. They should be made highly technical, and should fit men for a business calling as effectually as the engineering schools now fit men for the constructive vocations. If this aim and standard be kept clearly in view in the organizing of these schools, few mis-

takes are likely to be made. We now suffer from almost an entire absence of teachers to give the technical instruction, but with the need clearly defined, this want will soon be supplied. The fundamental subjects to be taught in these schools include one or two modern languages with additional English, if necessary; the basal sciences of physics and chemistry; medieval and modern history; commercial geography; transportation at home and abroad; money and banking; business organization and management; economics and economic history; a physical study of some of the standard materials of commerce; commercial law; and the consular service. The ordinary high school course and a course in bookkeeping and commercial arithmetic, and considerable modern language should be requirements for entrance. A commercial museum, containing the leading articles of commerce in their various stages of manufacture and of adulteration, after the style of that at Philadelphia, should ultimately become a feature of every such higher school of commerce. The above is the standard we have set ourselves at the University of Wisconsin, and we think nothing short of this will answer the demand for adequately educated men for our nascent world commerce.

Industrial education

During the last quarter of a century the educational seed planted in the minds of our people by the foreign exhibits at the centennial exhibition has ripened into a national conviction that the public education given to our children should more specifically fit them for the various industrial and commercial employments by which they are destined to live and on which all our material prosperity depends. The times are now ripe for a general movement in this direction. What has been done may be regarded as only the initial experiments preparatory to the formation of a general plan. The success which has uniformly attended these sporadic efforts has but whetted our appetites for a more general and systematic preparation for life in all its phases, in our public and private schools. I will outline a few of the present movements in this direction. These are but a

meager indication of what most of us will live to see put into operation in this country. The times demand that a very large proportion of the entire community should have a specific and scientific, or if you please, a technical, education in the fields of their several vocations, and this preparatory work will come to be done in supplementary schools of all sorts and kinds, many of which have not as yet been formulated either here or elsewhere. These schools will require a new class of educators, who are at once teachers and artisans, and it is high time we were setting our educational systems in order to prepare for this coming age of the new industrial education.

1 *Manual training schools*

I can not stop here to describe the accomplished facts in this field. There has here been a revolution in American methods of education for boys in the last 20 years. The American manual training school was born in St Louis in 1880. Dr C. M. Woodward was its father, protector and defender, and St Louis philanthropy was its mother. What it has become you all know. It is the leading form which industrial education has taken in free America, where every boy should have such an education as will leave his career entirely open at the top. It is to be hoped that society here will never be stratified horizontally, but rather vertically. Let every man's career here develop upward if it will, rather than be confined to the particular social stratum in which he was born. Instead of teaching boys the manual expertness of particular trades, therefore, we prefer to "send the whole boy to school" and so give him command of all his mental and manual aptitudes, and then put him out to find his place and his work.

It is astonishing how many kinds of places there are for such a product. Not content with doing this service for boys, a like kind of training in the domestic arts has in many places been provided for girls. But you are all too familiar with these methods and results to warrant my dwelling on them, however

fertile and attractive the theme. I must hasten on to the tendencies now visible on all sides in the way of supplementing this kind of "whole boy" education.

2 Commercial high schools

To prepare more directly for business, and specially for foreign commerce, commercial high schools are being established, of which that of Philadelphia is the leading example. Under the wise direction of Prof. Herrick this school has become a type which all our larger cities would do well to imitate. This course of study includes English and two European languages; European, English and American history; the usual high school mathematics, physics and chemistry; penmanship, stenography, typewriting, bookkeeping and commercial arithmetic; history of commerce and industry; banking, transportation and finance; business operations and office management; government of cities, ethics of business, and commercial law. This is indeed a heavy program for a four year high school course, but something can be done along all these lines. In many subjects a mere introduction, with a glimpse of what is to be had and how to obtain it, is sufficient for the ambitious student. He will find time in after years to follow up the leads thus opened to him, and so ultimately acquire what his school days were too short to yield.

3 The ideal American public school

There is much evidence to show that there is a strong tendency to introduce both manual and art instruction into all grades of our public schools, from the kindergarten through the high school. This I conceive to be the ideal American public school.

By distributing such exercises over the entire public school period not more than one hour each day need be taken for them, and this would come as a real recreation. This is the only way to bring the benefits of this kind of education home to all children, and to develop a race of doers as well as thinkers, a people of taste as well as of constructive talent. We have now the

active minds, the nervous energy, the stimulating climate, the raw materials, the genius for invention, and the ready adaptation, and are lacking only in the intelligent direction of the school education of all our children along the lines of manual training and of industrial and constructive art. Let us imagine if we can the effect of giving to one generation of the children of this entire country such a complete education as here described. Would it not give us an entire population of cultivated minds, skilful hands, and refined tastes? And, aside from the resulting material prosperity, imagine, if you can, the pleasure of living among a people all of whom have learned to know and to appreciate the true, the beautiful and the useful. We may safely rely on the development of the good as a necessary consequence of this educational trilogy. When this has become the normal, recognized standard of free public instruction in our cities, few other schools, of a more industrial type, will be required.

Pending this natural and certain evolution of our public school education, which I hope to live to see well advanced in America, it will be necessary to provide in all our manufacturing cities a system of industrial or technical day and night schools as described below.

4 Technical high schools

In the present state of our public school education there is a great demand in our large commercial and manufacturing cities for a kind of technical education of special use in the various lines of commerce and industry of the locality. Technical high schools should be established in which those subjects of local interest are systematically taught to both boys and girls by teachers who are perfectly familiar with the practical applications of what they teach in the school. These should not be trade schools in the sense that they teach the actual manual work and expertness which can much better be learned in practicing the trades themselves. They should be schools in which those sciences and arts are taught which find their embodiment

in the industries of the district. For each such industry a definite course of study should be laid out, covering four years time, and which in the more general courses will lead to the higher technical or commercial college on the one hand or to employment in the given industry or business on the other.

These technical high schools should be superposed on the work of the grammar grades of the public schools, and in these would be fitted the men who would ultimately become the proprietors as well as the shop foremen and superintendents in the several industries they may subsequently enter on.

I expect to see such schools established at an early day. We have something very like them now in some of our largest cities, but I know of none exactly filling this specification.

5 Industrial night schools

These schools should offer a great variety of instruction, literary, scientific, commercial, technical, and industrial, to all classes of wage-earners who could not attend any kind of day school, and who are desirous of continuing their education along any particular line of study. They may well be organized with fixed courses, leading to the granting of diplomas of various kinds, some of the courses being preparatory to college or higher technical schools. Whatever the people want, in sufficient numbers, should be supplied in these schools. The teachers should be of the professional class, and not mere temporary makeshifts. The Y. M. C. A. night schools have now been organized along these lines, and their efficiency has been vastly increased over that which characterized their work before this common organization and oversight was inaugurated. If there should be a demand for it, and not too great an opposition on the part of the community, these night schools might have a session on Sunday mornings. The physical weariness and exhaustion following a day's labor is the great bar to efficiency in all night school work, and the Sunday forenoon session greatly alleviates the situation in this particular. This is not an untried experiment. In Europe it is common, and such a free Sunday morning technical school ran

successfully for several years in St Louis. It was abandoned from the difficulty of obtaining competent voluntary instruction, and not from any lack of demand on the part of the students, or of fruitfulness in results.

6 *Correspondence technical schools*

Just 10 years ago, in answer to a demand in Pennsylvania for technical instruction to enable mine superintendents to pass a suddenly imposed examination, there sprang up in the heart of the anthracite coal region a tentative correspondence school to meet this local demand. The school was so well managed, and the instruction imparted proved so efficient, that the way seemed open to an extension of this kind of instruction beyond state lines, and to other technical subjects. Never were American genius and adaptation better displayed than in the fitting of this school to a great but as yet unconscious need. Extended advertising, branch agencies by the hundred, a corps of competent authors set to work to prepare special manuals, hundreds of clerks to write and answer letters, a special corps of assistants to correct and mark returned papers and drawings, all developed under a single directorship with great business ability, these were the elements and the agencies of what has become the largest educational institution in the world. This one school now carries on its rolls over 300,000 names of more or less active students. These are found also in all parts of the world wherever the English language is spoken. Several imitators have naturally arisen, but no one of these has reached as yet such proportions. These schools are great money-making enterprises for their proprietors, and doubtless result in materially increasing the incomes of their students. Their manuals are at once scientific and practical, and the small percentage of their students who pursue their studies with ardor and determination get a great deal of benefit from the courses. While it is easy to criticize their work as being shallow, imperfect and inadequate, as compared with any approved form of regular day school instruction, yet such a comparison is hardly fair. The significant comparison is between

that kind of instruction and no instruction at all. This is the real alternative. No one deliberately chooses to leave, or to refrain from attending, a regular technical school or college, to take instead the work of a correspondence school. On the contrary, a considerable number begin with the correspondence school and end with a course in an engineering college. The correspondence school comes to the industrial worker; he does not have to go to it. While acquiring the manual portion of his trade, he can in this way study the theories which underlie it. With such help as he here finds he becomes able to read more intelligently the technical journals and can continue his work through books obtained from the public library. Without his correspondence school assistance these would have been Greek to him. With these open to him he can continue his education indefinitely.

The most significant feature of these correspondence schools is the astonishing number of students they attract. This indicates a widespread need for this applied science education, of which little or none is given in our public schools. If these gave more of this kind of training, as advocated above, there would be less demand for the correspondence schools. They have come to stay, however, for whatever may ultimately be done in our large manufacturing cities, there will always be a large proportion of the rising generation deprived of such opportunities. The most of these will not feel the need of such training till too late to go to any ordinary school, and they will forever resort of necessity to the correspondence school. And this kind of instruction can come to them in the apprentice's hovel or in the manager's mansion, in the city slums or on the desert plains, in the mines of the Klondike or of South Africa, in Porto Rico or in the Philippines.

There is, therefore, a great and permanent field for the good correspondence school, and this field is already pretty thoroughly tilled in this country. These schools find their greatest weakness, as applied science schools, in the total absence of shop and laboratory opportunities. These may be wholly supplied for such

students as find these facilities in their daily vocations. Others may obtain them in such schools as are described in the next section.

7 Summer sessions for apprentices and artisans

The college of engineering of the University of Wisconsin is trying an experiment this summer in the holding of a six weeks session, July 1 to Aug. 9, for nearly all sorts and conditions of men who care to come to us for elementary classroom, shop or laboratory instruction. It is called a "School for apprentices and artisans," but our own engineering students can perform their year's shopwork during this term if they choose; high school boys can come up and get shopwork and mechanical drawing, and so gain some of the advantages of a regular manual training school course; and manual training school teachers can here extend their practical and scientific knowledge while attending lectures in the regular summer session of the literary department of the university. Our largest patronage, however, comes from the correspondence school students, and they come not so much to replace their correspondence school work as to supplement it by shop and laboratory practice.

8 Proprietary trade schools in connection with industrial works¹

Nearly all lines of production are now organized into a few great manufacturing centers, and all the factories of any one class in the whole country are more than likely to be operated by a single joint stock company. This company shapes the industry over the whole American continent. In the absence of other forms of industrial schools covering the local industries, these great corporations would do well to establish such schools in connection with all their large factories, in which a few of their brighter workmen could be educated, not only in all parts of their business, but in the underlying and related sciences, in order to become capable foremen, superintendents and inventors.

¹This and the following section have been taken from the report of a committee of the Society for the promotion of engineering education on "American industrial education, what shall it be?" of which committee the writer was chairman.

These are at least a considerable proportion of the men to whom the stockholders must look for continued improvements, for skilful management and economic operation. After we have passed through the stock-jobbing stages of these new and mammoth combinations, we shall surely come around to this basis of most economic production and safe business management. In those industries where perfection of workmanship is a prime essential, even the machine attendant must be a bright, skilled, thoughtful, attentive man or woman; and in these works some educational stimulus and some rewards for acquired skill and for fertile suggestions will be found not only to be fair dealing but a most profitable business policy. We are now passing rapidly through an evolutionary if not a revolutionary stage in these matters, and our general managers of large works are coming to realize the necessity of an educational side to their business. It is said of Americans that they are quick to see opportunities of improving their business and are ready to adopt any measure which promises a sufficient return for the outlay. Till the demand for special technical instruction in the various lines of wholesale production has been met in some other way, the manufacturing corporation would do well to furnish freely this kind of practical education.

9 Half time self-supporting trade schools

This class of schools has recently been ably advocated by M. P. Higgins, in the *Proceedings of the American society of mechanical engineers*. Mr Higgins was for 20 years in charge of the shop instruction given in the polytechnic institute of Worcester Mass. He states that the experience of that institution justifies the claim that well equipped and officered industrial works, as for instance large machine tool or engine works, joined to good technical schools, could be made to pay a very large proportion if not all of the shop expenses. In such a school the boys would spend half the day in the school and the other half in the shop. They would pay little or no tuition but they would receive nothing for their work. The school would

be divided into two sections, and these would alternate in school and shop work. A sufficient number of expert machinists would be regularly employed to oversee the shop work of the boys and to impart the shop instruction, while the theoretic or school work would be given also to both forenoon and afternoon sections by another set of technical instructors. In this way very nearly actual shop conditions could be introduced, and the advantages of the old apprenticeship system could be retained in addition to the farther benefit of a regular school training. If such a system of trade schools be practicable, they may go a long way toward furnishing a final solution to the great problem of the industrial training of the rising generation. It is to be hoped that Mr Higgins will find the means of embodying his ideas in an actual combined shop and school as he proposes, and so prove the practicability and efficiency of his plans by an actual test.

I have now indicated some of the present tendencies in technical, commercial, and industrial education in America as I see them. We must accustom ourselves to the many-sidedness of this subject. As life and industry increase in complexity, the preparation for lives of use and service must become more and more highly differentiated. We have largely failed to see this. We have relied too much on a general education for a sort of generic boy. We now find the generic boy is fit only for a generic employment. But unfortunately our actual employments are all specific. There is little use for the all-around man who has been educated for everything in general but for nothing in particular, unless it be to train other men to lead similar lives of inutility. "By their fruits ye shall know them" is as valuable a criterion in education as in horticulture or in morals. It is not a question of this or that kind of education. It is to be this and that and all other kinds of education which can profitably be employed to establish the character, to enlighten the mind, to develop a capacity for service, and to create helpers, in our material, moral, and social progress, of every son and daughter of man, regardless of age, sex, or previous conditions of intellectual servitude.

TREND OF PROGRESS IN PROFESSIONAL EDUCATION

BY PROF. ROBERT H. THURSTON, CORNELL UNIVERSITY

The subject assigned for discussion before the University convocation at this point on the program is "Present tendencies in technical and professional education"; and I am asked to present a brief summary of that discussion from my point of view as a professional from boyhood, as an educator in that field for a generation, and as a practitioner throughout the whole period since leaving Brown university with the first diploma ever conferred for a technical course of college work, the Ph.B. given for the then full course in engineering supplemented by a specified amount of liberal study.

The course was the invention of that famous and noble man, Francis Wayland, and was perhaps the first illustration on record of the now customary elective system of our universities. The debate in the faculty over the unexpected revival of a forgotten provision in the statutes of the Wayland *régime*, then some years past, and over the astounding proposition to confer a Ph.B. for an elective course was hot and earnest; but the statutes were explicit, and I was given my hard-earned degree. That the faculty was not inclined afterward to repent was perhaps signified by the conferring of the master's and of the doctor's diplomas, in later years, for technical work and for work in the development of systematic and scientific as well as liberal instruction in the professional school and elevation of standards to altitudes unprecedented in such institutions.

This experience is in itself indicative that progress has been made in the technical schools and the schools of engineering, as well as in the older professional schools of law, medicine and theology. The tendency has been and still is toward making these schools professional in fact as in name and toward making them postgraduate to the academic colleges. The tendency may be said to be exhibited markedly in these four special directions: 1) classification and definition; 2) form and detail of curriculum; 3) personnel and system of administration; 4) correlation with the system of education of the state.

In classification and definition, the accuracy of scientific nomenclature is coming to be observed, and the technical school, whether or not collegiate in grade, and whether in law, medicine, theology or engineering, is coming to be precisely what its name implies. As the colleges, the universities, the high schools and the academies are abandoning the old deceptive nomenclature which designated a secondary school as a university and the university as a college, and colleges, irrespective of standing or curriculum, as academies and universities indifferently, so the technical schools are becoming exactly defined and are classified by the exact definition. We are beginning to have distinct ideas, where formerly we had hazy conceptions of manual training schools, trade schools, monotechic and polytechnic schools, technical high schools and colleges, and of professional schools of engineering, of law, of medicine and of theology, in which the work is, as the name implies, that of providing professional instruction for the man already educated sufficiently, or at least as well as his means and time permit, and sufficiently to secure admission to the professional school when seeking purely professional training.

This complete definition, classification and precise construction of the technical school, of professional or lower grade, is by no means yet accomplished, but it is in progress; and in this country a movement once understood and inaugurated, is apt to take form promptly and accomplish its purpose quickly. It is now becoming generally understood that technical education begins with and has its perfect illustration in the kindergarten; that the manual training school finds a suitable place, and in fact is an indispensable accessory, beside the system of public common school instruction; that the trade school, the monotechic school, as it is sometimes called, is intended to give the youth, about to enter on a chosen vocation, systematic and scientific instruction in the principles and the technical devices and methods of his selected trade; that the technical high school is assigned the work of instruction of youth seeking special instruction in the applied sciences; that the technical college provides higher in-

struction in the same line, the lower of the two being graded by its mathematical courses beside the academic high school, the latter similarly beside the academic colleges.

The professional school is coming to have the distinct duty of providing professional or closely related and essential instruction; the law school confining itself to law, the medical school to medicine and the school of engineering to engineering. We are coming to discriminate sharply between the professional and the nonprofessional curricula and to provide for the one in the professional school and for the other in the academic institution. This means, necessarily, for professionals the placing of the academic college first and the requirement that the professional man shall secure his education, to as large extent and as great altitude as is practicable, before commencing his professional studies and training, his higher apprenticeship, as it actually is. The student who enters the professional school is now a better educated man before entering, and will be a better professional after leaving, than in those earlier days of mixed curricula.

In form and detail of curriculum the tendency has been toward closer correspondence with the prescribed and accurately defined class to which the institution is assigned by its organizers. Kindergartening is coming to be a distinct vocation for certain teachers best fitted for that work, and the child receives his instruction in "the doing of things" in a separate division of the school and from expert special instructors, while his teachers in elementary literary and scientific departments are similarly distinct specialists. All that the child does or is taught is now more and more brought to him by teachers expert in that particular work. The child in the manual training school is similarly cared for by expert workmen and teachers, in the shops on the one hand and in the classrooms on the other. The college of engineering provides a curriculum which assumes knowledge on the part of the student of all that is requisite for a thorough understanding of the professional studies and professional practice, the science and the art of which are to be taught

him. In every grade the academic school gives instruction in general principles and in pure science, in literature and in fine arts; the technical school teaches special principles and applied science, utilitarian literature and industrial arts. This permits and in some degrees insures, that the pupil shall secure his education and intellectual gymnastic training in advance of the utilitarian and that the student in the technical and professional school shall come to it in a maximum degree preliminarily educated. It farther insures that such instruction as he receives in either division shall be provided by specialists, experts in each subject taught.

In personnel and in system of administration, this last point comes out prominently in all the best schools, technical or professional, or academic, as illustrating the progress and the tendency of modern educational systems. All progress is toward the exclusive employment of experts.

Formerly clergymen were presidents of engineering schools, lawyers taught Greek and physicians chemistry and physics. Today the sight of such follies as a nonprofessional at the head of any professional school, or of the amateur seeking to teach subjects only suitable for the expert and the professional, or of any good man out of his place excites remark, usually a smile, and always involves injury if not failure of the institution previously controlled by incompetent men. Only the expert is now placed in the chair of either presiding officer or professor or teacher.

In the correlation of the systems of education of the state and their combination into a consistent and symmetric whole the tendency is now readily seen to be one which must result in a vastly more complete and perfect educational system than has ever been seen. It is the first duty of the state to provide for the education of all its citizens in the directions and to the extent desirable for each individual. The advantage recognized in the education now taking form is that it does not prescribe a procrustean form for all, but gives to each that which each consciously seeks as best, under the circumstances, for his

her life's future, and to the extent to which each sees a way to pursue the chosen studies. Compulsory limitation of education, as to either character or extent, is hardly less objectionable and unsatisfactory than compulsory bargaining between employer and employee. In the long run, the individual may be depended on to select that which, on the whole, is best for the individual. That which is best for each individual is as a whole best for the state. The finest intellects of the community may always be expected to select the highest, best and most complete education attainable. To force all to take a single line of studies would simply result in forcing directly into business all those who could not or who should not desire to pursue the prescribed curriculum; to return, in fact, to the old way.

One of the most important and fruitful results of this tendency to provide every kind of education that the citizen finds desirable is seen in the rapid increase, during the last decade particularly, in the number of men in our colleges, of women taking collegiate courses and in the growth of those departments which we have feared might seriously suffer from the tendency toward the development in increasing numbers and exactions of professional departments and departments of applied sciences.

This movement has come, in large degree, if not mainly, from the introduction and general adoption of curricula meeting the requirements of the "land grant bill" of 1862, the organization of the land grant colleges and the general awakening to a knowledge of the fact that the kind of instruction particularly useful to the people at large and helpful in their daily life could be had in the high schools and colleges where, formerly, had been offered only the kind of teaching which other men wanted them to accept. Freedom to select those kinds of knowledge which the individual of his own judgment chooses is hardly a less important and valuable right than that of political freedom, particularly now when a man is no longer a free man in our country, permitted to say where he will work, whom he

will work for and on what terms he will make his exchange of labor and skill for a daily wage. Loss of freedom in one direction is apt to make us prize more highly freedom in other directions.

The establishment of technical departments and professional schools of engineering and architecture and the foundation of technologic schools is, I think, not resulting in the diversion of students from the courses in liberal arts to those of the technical departments; it is, rather, bringing our colleges men who would otherwise go directly into business and who would not in any event pursue liberal studies. It diverts from too early business life, to the colleges, men who find in the institutions of advanced learning instruction which promises to be more valuable and helpful to them at the moment than immediate apprenticeship in the chosen vocation. This is perhaps best shown by the fact that this tremendous growth of the technical side of our college and university, offering such instruction, is not accompanied by a falling off, absolutely or relatively, in the numbers taking the academic courses. At Cornell, for example, it is perfectly true that Sibley college made enormous gains in the years succeeding 1885; but it is none the less true that our classes in Latin and Greek are also able to point to very similar growth. In 1885, we granted in our academic department 44 diplomas; in 1890, we gave 91; in 1895, 87; in 1900, 156. It would perhaps be unfair to take the growth of Sibley college as measuring that of the technical departments; but in civil engineering the number of diplomas awarded in 1885 was 9; in 1890 it was 36; in 1895 it was 30; and in 1900 it was 55. In 10 years, the number in the arts courses has about doubled; in civil engineering the increase has been rather less. In all departments, the entrance requirements have been meantime very greatly increased.

The most remarkable phenomenon of the time has been the immense increase in the number of young people entering college since it has been possible for them to secure courses of instruction suiting their preferences and meeting their needs,

and has not been compulsory on them to take courses specially planned for those entering the so-called "learned professions," or desiring mainly literary work.

On the other hand, I am inclined to think that this great influx of a new class of students into our colleges has, in turn, resulted in the stimulation of a demand for liberal studies. Every new representative of these new classes has a friend, and acquaintance, perhaps many of them, whose ambition to secure a college education has been awakened by the decision of the young novice in engineering or other department of the applied sciences to go to college. I believe that this influence has proved a very potent one, and that our liberal courses are profiting greatly by it.

They also profit now in some degree and in an increasing extent by the fact that a now observable and rapidly increasing number of men seeking professional instruction in the engineering and other professional schools are beginning to see that it is important for those who can give the time and money for that purpose to take a liberal education as preliminary to the professional training. The introduction of technical studies into the curriculum of the university has promoted interest in education of every kind, has stimulated ambition and has advanced the cause of scholarship in all ways. The spirit of the technical school is necessarily one of industry and accomplishment. The demand of the faculty of the technical school is for the young men fitted for a special work, and this compels a policy quite different from that of the school of liberal studies. The latter must endeavor to secure the education of all; the former must prune out the unfit and must not permit if it can avoid it, the introduction into any profession of men without the talent requisite for its successful prosecution. The one seeks to educate all; the other seeks to select the fit. In the one, as many should be allowed to survive as is consistent with a good morale; in the other only those suited to the work should be given the stamp of fitness. The presence of the technical departments promotes the scholarship of the associated academic division of the college.

There is no natural conflict of interests between academic and technical educations, no ground for jealousy; all can and should work together.

The distinguished German technician, Prof. Koechley, once, commenting on the strict demarcation then and still existing between the universities and the technical colleges of his country, made the remark in substance, that, if the academic and the technical schools could not stand side by side, they "might at least fight back to back against the forces of barbarism." I am sure that, in our own country, where the two divisions of the educational army are coming into such close relations, and working so harmoniously, we may assert that we are all fighting hand in hand and joining heart to heart, in that great battle. We have every possible reason for joining forces and for working together for one great end: the promotion of systematic and universal methods of education of the people for the life of the people, for that "complete and perfect" education that John Milton aspired to see and that every great educator, from Plato and Aristotle to the marquis of Worcester and Francis Wayland and Andrew D. White, has endeavored to promote.

Special addresses

Pres. George B. Stewart — To those of us who regard the church as an institution which stands for certain great ideas in the world of thought and certain high ideals in the domain of character and certain spiritual power in the sphere of life, the education of her ministers is by no means an unimportant matter for consideration. We believe that the ministry still occupies a position of interest and value in the estimation of those who love the church. We do not sympathize in any degree with that temper of mind which is expressed by some and which was illustrated in a certain Kansas hen. She went off to search for other scratching ground for her numerous brood. She returned to find her most promising son gone. She carried on as only mothers can under such distressing circumstances till one of her neighbors said to her, "Why, Mrs Hen, what is the matter?" "I have

lost my boy." "I don't think you need be worried about your son. I saw Mrs Smith going into the house a few moments ago with your son; he had his head off. The Rev. Dr Blank went in a little while before. I think your son must be about entering the ministry." I do not think we need be worried about the young men who are entering the ministry.

In the ministry we still require character as the preeminent qualification. Whatever I may have to say of other requirements, I trust that we shall keep before our minds this one fact, that, however valuable character may be in the practice of other professions, it is absolutely essential in the practice of the clerical profession. "John has gone to the theological seminary", so his mother said, and she added, "I hope when he returns, he will still be a Christian." I hope so, and the seminary aims to produce not only ministers but Christian ministers.

Now there are certain tendencies in the theological seminary evident in this day. It will be admitted that 50 years ago the theological seminary as a technical professional school was far in advance of any other professional school; indeed other professional schools were then very few. But the theological seminary has not kept up with the procession; or, to put it otherwise, the procession has moved faster than the theological seminary, and it no longer leads with that large distance, if it leads at all, between it and the good second that follows it. Nevertheless, I believe that we have come to a renaissance of the theological seminary. That renaissance shows itself first in the matter of scholarship aid. I do not propose to discuss that technical problem, for it is of very little interest to you. I refer to it in order to call your attention to this single fact, that, whereas in times past poverty was the only condition in the theological student precedent for receiving financial aid, now he must be not simply poor, but he must also have merit. He must be good of course, that goes without saying, but he must be good for something as well.

These tendencies show themselves also in the matter of entrance requirements. There was a time, perhaps in certain

quarters that time still continues, when parts, piety and poverty were all that were required of the student seeking the ministry. If he had these, he had the requisite qualifications for entering a theological seminary. I have just seen a report recently prepared by a committee of the governing board of a distinguished theological seminary, in which it was maintained by the committee that the seminary had no right to refuse its instruction and the benefits of its curriculum to the young man of parts, piety and poverty, even though he might be deficient in scholarship. I am happy to say that that is not the view held in all theological seminaries. To these three p's we are determined in some of the seminaries, the one with which I have the honor of being connected being one, to add a fourth. We say to men seeking admission to our institution, you must have parts, piety, poverty and preparation. Even though your poverty may be colossal, your piety noteworthy and your parts unexcelled, without preparation you can not get in. In other words, we are saying to men who come to us, there is a scholastic preparation required of men who would pursue the technical training of our professional school. We require a B. A. degree, for example, from an accredited institution. If you will allow me to refer to the institution of which I know the most, I will state that last year we had 56 applications for admission to our institution and we admitted 30, refusing admission to 26; and we feel that we rendered the more valuable service to the church in the case of the 26 than in that of the 30. In other words, we believe that an adequate scholastic preparation for the pursuit of the special training of the theological seminary is an indispensable qualification for that training. Now this is a tendency that is prevailing in our foremost theological seminaries today, and this tendency is most significant. It means that the theological seminary course is to be articulated to the college course, making the preceding academic training more imperative than has been the case in the past. In bringing about this coordination the colleges must cooperate with us. We can not do it alone, and we humbly invoke your assistance and cooperation in our effort to put our technical

schools as the proper conclusion, so far as those seeking the ministry are concerned, of the academic course pursued in the college and in the university. I should be very glad indeed to discuss more in detail this tendency, but I am simply to call your attention to tendencies, not to unfold them, nor to show the problems which they start, surely not to attempt to solve the problems

Another tendency in theological training to which I think it important to call your attention pertains to the curriculum. The curriculum of the theological seminary in times past embraced five departments. There were the exegetic department, which comprised the study of the Hebrew and the Greek languages, and the exegesis of the New and the Old testaments; systematic theology; church history; the homiletic department in which men learned how to preach; and the practical theological department, so called with no intimation of course that the systematic theological department was not practical. While these five great departments continue to be the backbone of the curriculum, yet they have been so expanded in recent days that it is with the greatest difficulty and the most serious embarrassment we undertake now to carry a student through them. Unless you have given particular consideration to the matter, you are not prepared to realize the marvelous expansion of this technical curriculum. It is my duty to take the incoming class of our institution over what we call propaedeutic, in which a survey is given of the whole domain of the theological curriculum. Of course it is brief, of course it is but a birdseye view, but I observe that it is appalling to the incoming students. They are simply amazed to see the wide area of subjects over which they must travel. It has been within the last few years only that this expansion of the curriculum has occurred, and it is going on at a tremendous pace. It starts many problems for us at which we can not at present even glance.

There is another tendency which I feel is a most vital and suggestive one, the tendency toward emphasizing the importance of the Scriptures. Perhaps some of you are clergymen and if

you are, you know that in the theological seminary of 25 years ago there was really very little attention paid to the Scriptures as such outside of the study of Hebrew and Greek. Far more attention was given to systematic theology, far more attention given to church history than was given to the Bible. But today systematic theology is being sadly crowded into a smaller and still smaller compass, while biblical theology, exegetical theology, the study of the Scriptures, not simply from a linguistic point of view, but as literature, the study of the Scriptures as a whole, indeed the study of the Scriptures from many angles, are enlarging their bounds and occupying more and more of the prescribed and elective schedule. I believe this is a significant tendency, and that it is fraught with the largest advantage to the professional training of our ministers.

Allow me to call your attention to another tendency, and that is the specialization of the work and the emphasis on the practical training of the ministry in the peculiar duties which they have to perform. We are becoming more and more specialized, more and more practical, less and less theoretic, less and less medieval. This is seen in the increase in the number and scope of the electives, which give ample facility to men for specializing in particular departments and also for direct training in the practical work of the ministry. It is seen in the use of modern scientific methods of instruction in the seminary, by which the student does the work under wise direction instead of being crammed with useful or useless knowledge by a learned professor.

I believe, fellow pedagogues, if you will allow me to use that expression, that just at present there is no department of professional training of more consummate interest, commanding importance and far reaching influence than that of the ministry; and the present tendencies in it are fitted to fill us with the largest hope for its future effectiveness.

Dr Bayard Holmes—The progress of professional, specially of medical education has reached a point where it must improve in quality, rather than increase in quantity. The schools of theology have such liberal endowments that they are not re-

stricted by expense, but they are greatly hampered by traditions and by the eleemosynary character of their students. The schools of dentistry and pharmacy are so technical that they are on the border line of professional education, and the character of the special education they give has been so entirely without precedent, that they have hewn out a rational and effective system of their own. The schools of law have just reached the three years course, and in a few institutions the pedagogic aspects of their education are receiving something like adequate attention. It will be sufficient for my time if I confine remarks entirely to the problems which face the medical school.

During the last 10 years the curriculum of the medical colleges of the United States has increased from a maximum of 18 months (from the beginning to the end of the course) to a minimum of three years and six months; and from a maximum of 12 months actual attendance to a minimum of 28 months. The number of subjects presented to the medical student has increased in a far greater proportion, and the actual time required of him in the laboratories, lecture rooms, dispensaries and hospitals has actually increased to a point beyond the endurance of the healthiest and most devoted student.

Before any time is added to the present requirements for the medical students, a great pedagogic revival must be instituted among medical teachers. No more time is wanted for the medical course, but much better and more effective teaching. In the growth of the curriculum subjects that were naturally most closely related have for the convenience of the teacher been wholly dissociated. The several branches of the course of study must be correlated. The student's needs and the needs of the subject rather than the teacher's time and the convenience of presentation, must be considered imperative. The course of study must be organized about the individual student, and the teacher must take his place as exemplar and guide. Medical teachers must be selected, not on their general reputation as practitioners of the art, but as teachers and investigators. As a preliminary to any pedagogic reform, and as a prerequisite for

a better method of teaching medicine, certain changes must be instituted in the medical school and in the form of the medical curriculum.

First among these changes must come the elective course, extending from the beginning to the end of the curriculum. This does not mean any limited choice between two or more possible, set subjects, topics or teachers of the same topics, but an organized plan on the part of each student and his dean, adapted to the mental and physical training of the student, his experience and tastes, and the equipment, facilities and resources of the institution. This elective system does not contemplate any neglect on the part of the several departments of medicine to offer systematic teaching, but rather the proper and free development of each institute (e. g. the institute of anatomy) in every method of teaching. Among the advantages of the elective course, as it appears to me, the following are conspicuous:

- 1 By means of the elective course the greatest possible freedom is given to the student, and his individuality and self-reliance are cultivated. He is fitted to undertake similar studies after leaving his professors. It permits him to correlate the dissociated departments of the medical curriculum, the use of which is a unit at the bedside. The plea for this liberty for the student has been convincingly made by Prof. Franklin P. Mall in the *Philadelphia medical journal*, Ap. 1, 1899.

- 2 The elective course permits the medical school to utilize every laboratory, every hospital and dispensary, and even the private clinics of physicians and surgeons in extra-mural teaching. This extension gives the clinical and actual laboratory facilities which the large enrolment of our medical schools requires. In Chicago nearly every small hospital and dispensary and many allied institutions have become or are becoming adjuncts to the medical schools, with all the advantages which teaching inspires in the hospital staffs and which the unbiased criticism of the rotating student body gives to institutional management. No negligent or corrupt service can coexist with satisfactory medical teaching. The poor men are driven out of the

hospital staff by the attentions which the good men receive from students, and abuses of hospital management and shiftless methods are corrected. Such institutions as hospitals for the insane, homes for the epileptics, reform schools and penitentiaries, even though quite distant from the medical school, may become centers for special medical teaching, thus adding greatly to the inspiration and scientific attention of the staff and equally to the efficiency of the management. There is no institution public or private in which suitable scientific and educational work would not be welcomed by the residents, the management and the medical staff.

3 The elective course and extra-mural teaching give the medical schools an opportunity to train, discover, and utilize an increasing number of wide-awake medical teachers. The real progress of medical education in the future must depend on better methods of teaching. Architectural conditions limit teaching, but correct architecture alone will not better the medical school. The anatomic laboratory, for example, must be replaced by the anatomic institute, furnished with every facility for anatomic research and study, but the institute will be as inefficient as the dissecting room has been unless it is guided and manned by teachers with thoroughly good pedagogic methods, men who think more of educating the student than drilling into him anatomic formulas. Anatomy must be taught as a unit, and not dissociated from embryology, physiology, pathology and microscopic anatomy. Cutting up dead bodies and peeking through microscopes at colored shavings is not, and never will be, satisfactory anatomic study. The student's mental vision of histology as derived from the textbook pictures of 20 years ago was, on the whole, as good as that derived by the prevalent method of passing around cut and stained sections of alleged mammalian viscera. The true teacher whether of anatomy, of physiology, of pathology, of clinical medicine or of operative surgery, must remember at all times that to the student there is but one motive of study. It is his duty to cure the sick safely, pleasantly and quickly. While the anatomist, the pathologist

and the surgeon may look on his department as an entity, complete in itself, to the student each of these subjects is but one more or less important aspect of, but not fragment separated from, the field of medicine. Pedagogy has hardly been thought of by the bulk of medical teachers, and good teachers have so far arisen only spontaneously. They have found the present construction of the medical curriculum badly adapted to their methods and development.

4 The elective course gives opportunity for small classes in which proper methods may be employed. Classes larger than 20 can not receive adequate attention even from the most thorough, devoted and wide-awake teachers. There are many subjects in which the students in such a group will be working on widely different problems and producing original matter of the greatest professional and scientific interest. It matters little whether the course is a laboratory course, a seminar or a clinical course, it becomes valuable and pedagogically effective only when the classes are small. Six is as large a number as the hospital clinic can engage, and 20 is the limit of the effective laboratory. Large classes can still be held together for a limited number of subjects presented in lectures by unusually powerful or masterly lecturers. The day of usefulness of the theatric clinic has passed. The time for small numbers and quiet study has come.

In addition to the elective course a second coincident change in the medical school must be made.

The library, both that of books and that of case histories and hospital records, must be a larger and more vital part of the medical school.

10 years ago there was hardly a library in any medical school in the United States, nor were there any libraries open to medical students. The library of the surgeon general's office, the library of the Academy of medicine in New York, the library of the College of physicians in Philadelphia, and the library of the Boston association were the only medical libraries of any account in the United States. These libraries were open during working hours, were indexed and cared for, but they were not

accessible to medical students, nor did any considerable number of medical students seek library facilities. Now the conditions are quite different. Many medical schools have very useful working libraries, catalogued up to date and kept open during working hours for the use of medical students, and, more important than all this, many teachers require students to do a considerable amount of research in medical literature in the course of daily instruction. The library is slowly becoming a vital part of the education of medical men. By the library I mean the properly catalogued and usable files of current literature and not alone belated compends and monographs. So actively is this library-making in progress that there exists a national association of medical libraries maintaining a systematic method of exchanges, and a journal is published devoted to the interests of medical libraries and librarians.¹

In addition to the elective system and adequate libraries, medical teaching must be intrusted to well paid teachers rather than to successful practitioners.

The clinical teacher must necessarily be a practising physician, but he must also be, if he is to benefit the student, of the coming medical school, a scientific investigator. He must be a man acquainted with the present medical literature, with the history of medicine and above all he must be a careful, accurate and thorough investigator of the problems of his practice. Such a man the ordinary practitioner can never be. He is obliged to compete in his practice under conditions in which skill and thorough investigation and judicial decision are at a discount.

In addition to these three modifications which are in the line of present progress, medical colleges must have a different architecture. The amphitheater and larger class laboratories

¹ Holmes, Bayard. The medical library for the medical school or the small medical community. American academy of medicine. Bulletin. Aug. 1895.

Cannon, W. B. The case system of teaching systematic medicine. Medical and surgical jour. Boston. 2 Jan. 1890.

Spivak, C. D. ed. Medical libraries. Bimonthly.

—— Medical libraries of the United States. Med. jour. Phil. 22 Oct. 1898. Reports of the commissioner of education.

should be replaced by institutes of anatomy, physiology, pathology and experimental medicine, fitted out with all the equipment for original investigation and elementary instruction. These institutes should have museums or collections, small lecture rooms and appropriate apparatus, departmental libraries and private rooms for original investigation. The methods of the best teachers and the enthusiasm of original investigators must be added to systematic elementary training.

If we are asked who is to pay for all this, I will ask who is paying for the work of the agricultural experiment stations of the United States in which the income of over \$30,000,000 is expended annually? Who is paying for the study of the diseases of swine and fish, of plums and potatoes, of silkworms and forest trees? Who is paying for the schools of electric engineering, for the schools of mines, for the military and naval academy? Who supports the schools of theology which expend annually the income of more than \$50,000,000? But, specially, who takes care of the blind, the deaf and the epileptics, more than one third of whom, on a most conservative estimate, are made defective by inadequate, unskilful and uncontrolled medical attendance?

The natural argument for a better medical education comes from the desire to diminish the ever increasing stream of defectives, dependents and delinquents, the education, care and hopeless confinement of whom is one of the most useless, extravagant and growing drafts on the resources of the state. The medical school should be a means used to restrict, by furnishing better medical attendance, every form of dependence known to result from disease. The medical students should be instructed in every public educational, corrective and curative institution in the state. Such instruction would purify the administration of these institutions by the intelligent criticism it would furnish, and it would drive out of place the fakirs and incompetents who now hoodwink the public and the administrators. It would bring methods of prevention into strong contrast with methods of repair. The union of all public insti-

tutions for the purposes of education and research would make the state university the conscience of the state. The university and its medical school should naturally be supported out of the tremendous savings which their supervision would bring about, savings from expenditures of the public treasury which are now being worse than wasted in the fruitless education, care and confinement of the unfortunate thousands unnecessarily made idiots, blind, deaf-mutes, epileptics, insane and delinquents.

Dean James B. Scott—Before considering the progress in teaching the subject of law and the methods used, it seems reasonable to premise a few words concerning law and its nature. For the purpose of definition I cite, without comment, the statement of Sir William Blackstone, who says in his *Commentaries* that “municipal law is properly defined to be a rule of civil conduct prescribed by the supreme power in a state, commanding what is right and prohibiting what is wrong.” Law, it should be observed, is here used generically and signifies the collection of individual laws, statutes and customs, which taken together make up the law of any particular body politic.

Now where is this law to be found? In one book or many; in systematic treatises or scattered through judicial reports?

The common law—and the common law is the basis of our law, except in Louisiana and, in a lesser degree, California and Texas—is the English law other than statute law. Actual cases in regularly reported decisions from the reign of Edward 2 to the present day, rather than the textbooks or views of individual writers, contain the law, and it is from the study of these actual cases that the principles or rules of conduct must be found, which, analyzed and classified, form the science of law.

If, for example, you find that a court will not enforce an agreement unless certain elements have been present: proper parties, proper subject-matter, willingness and ability to agree,

actual agreement—not to speak of consideration—you come to the conclusion that these things go to the essence of the enforceability of the agreement or contract, as it is technically called. Once establish the existence of these essentials and the law or rule is plain. “A contract,” therefore, in the language of Chief Justice Marshall, “is an agreement to do or not to do a certain thing.”

The principle of the case thus ascertained applies in cases of like kind till reversed by a superior or subsequent court, for it may well be that the first court erred. Hence it is that, while our law is case-law, and while a precedent is law till over-ruled by the court or changed by the legislature, a court is free to consider whether the correct principle was discovered and applied, or whether it is applicable to the case before the court. It becomes necessary, therefore, to consider the reason of the thing, the principle underlying the decision; for, if this be false, it should not be followed, and it may generally be said that it is not followed permanently. For example, A contracts with B on October 1 that he will convey to B on May 1 of the following year a lot of ground on which is situated a very valuable house. No change of possession takes place, that is to say, A remains in possession, and on April 15 the house on the lot is totally destroyed by fire. On May 1 A offers to B a deed of the lot, which B refuses on the ground that he contracted for a house and lot, not for the lot alone. Can A hold B to his agreement? that is to say, on whom does the loss fall, on A, or B? Lord Eldon says on B, who in equity is already the owner of the lot in question, and this decision is generally followed in this country. It is not, however, the law in some particular states, for example, Massachusetts and New York among others. In my state, Illinois, the English decision is followed. But suppose a state had no statute bearing on this question, or any decision of the court, and the case above mentioned arose. A's attorney would maintain that the loss falls on B and would cite English and American cases in support of his view. B would maintain that

this was not undisputed law; that it was unreasonable that the loss should fall on B, for A was in possession and B had not entered on the land. He would cite New York and Massachusetts decisions to sustain his contention. The question being open, the court would have to choose the rule to follow. Which rule? The more reasonable one, it is to be hoped. In any case the reason or underlying principle is the thing to be studied. Without understanding or knowledge of this, the facts of the case or the decisions themselves are practically useless. Law is not chance, and, if it be not "the perfection of reason," it is nevertheless reason, legal reason, artificial reason.

An illustration will serve to accentuate the meaning of the underlying reason. In English common law, it is held that a stream is public as far as the water ebbs and flows, the reason being, that no stream in England is navigable above the ebbing and flowing of the tide. As the navigability and the flowing of the tide coincide, it was natural that the English judges should accept the ebbing and flowing as a means of determining the navigability of the stream; but after all, the navigability is the chief thing. In our country therefore, if a stream be practically navigable above the ebbing and flowing of the tide, it should be a public stream. That is to say, we reject the language of the English judges and adopt the fundamental reason—the spirit of the law rather than the mere letter.

Having thus treated in a general way of the law and the importance of the principle underlying the decision, I now pass to the methods of teaching or imparting the knowledge of the law when ascertained. The law student formerly "read" law in a lawyer's office. That reading law in a lawyer's office was not accompanied with satisfactory results, is clearly shown by the establishment and continuous growth of law schools in the last 40 years. Schools of law not only give a rounded and systematic preparation for the practice of law, but it is established that they give the most satisfactory preparation. James Russell Parsons jr has admirably treated this matter, and the following passage is

taken from his monograph, *Professional education in the United States*, published in the year 1900, page 32:

Since 1858 the growth in law schools has been most remarkable. In 1878 there were 50 schools with 3012 students; in 1899 there were 86 schools with 11,883 students. The increase in students in 21 years has been 294%. These figures show that the old method of study in the office of an attorney is rapidly giving place to the systematic training of the law school. In fact it is impracticable under existing conditions to obtain a satisfactory legal education in an attorney's office.

This is the language of the layman; the professional lawyer is no less positive and outspoken. The late Chief Justice Waite says:

The time has gone by when an eminent lawyer, in full practice, can take a class of students into his office and become their teacher. Once that was practicable, but now it is not. The consequence is that law schools are now a necessity.

The great Lord Kingsdown, who was educated privately in a lawyer's office, gives his testimony against the system in the following language, after citing which I pass to the consideration of the methods of study. Lord Kingsdown says in his *Recollections*:

I am not sure, however, that my legal education, though long and laborious, was by any means successful. My uncle . . . had no other pupil than me, which, in many respects of advantage, was, on the whole I think, rather the reverse. None know the difficulties of a path but those who are treading or have just trodden it. Difficulties are continually arising, and by discussion amongst themselves pupils learn more from each other than from a master.

There are, generally speaking, three methods of instruction in use at the present time. The first is the lecture system, by means of which the instructor reads or delivers an essay on a subject of law. The students are listeners and note takers, but take no active part, whatever. This is sometimes supplemented by quizzes conducted by instructors or quiz masters appointed for this purpose. The lecturer provides them with his notes, or they, themselves, take notes of his lecture. The students are quizzed on the subject-matter.

The second method is that of imparting knowledge by the use of textbooks. The lesson is assigned and the student is expected to prepare himself on the part assigned. The instructor, himself, quizzes them on the matter assigned, and he answers questions and explains them to the class. Reference is sometimes made to cases, either to support or to refute views advanced in the course of the instruction.

The third method combines, as it appears to me, the advantages of both of these methods without the disadvantages, and, in addition, has a peculiar and life-giving merit of its own. Well known teachers of law have prepared selected cases dealing—we will suppose—with the subject of contracts. Several cases are assigned to the class, and the student is expected to prepare the cases and recite on them; and each case is selected to develop a particular and important part of the law of contracts. The book of selected cases follows the order of a textbook; but the law is developed, not from what some textbook writer thinks is the principle of the case; but is developed by the student, himself, by and from the study of the very case which established the principle under discussion. By this method, the student is forced to rely on himself, and he not only acquires the law from the leading case on the subject, but he sees how the point under discussion arose in the case, how it was developed, and how it was decided by the court. The instructor guides and directs; the student does the work. This I would venture to call the "laboratory method."

In speaking of Prof. Langdell, who introduced this method of teaching, Pres. Eliot says:

He told me that law was a science: I was quite prepared to believe it. He told me the way to study a science was to go to the original sources. I knew that was true, for I had been brought up in the science of chemistry myself; and one of the first rules of a conscientious student of science is never to take a fact or a principle out of second-hand treatises, but to go to an original memoir of the discoverer of that fact or principle. Out of these two fundamental propositions—that law is a science, and that science is to be studied in

its sources—there gradually grew, first, a new method of teaching law; and, secondly, a reconstruction of the curriculum of the school.¹

In this method it must not be understood that lectures are excluded; they arise as occasion demands. Textbooks are not neglected, and references are constantly made to the leading textbooks on the subject. But neither the law lecture nor the textbook is made the basis of instruction. The case is, itself, studied, and the student is enabled, in his undergraduate days, to appreciate, distinguish and to apply a principle which has been established by a court of justice, and which, itself, will be, no doubt, a precedent in a court of justice when a case of like nature arises and is the subject of litigation.

For the confirmation of the above views I beg leave to cite certain statements by those whose authority will of itself be proof. Prof. Langdell, who is the founder of this method of teaching law, states his case as follows:

To accomplish these objects, so far as they depended upon the law school, it was indispensable to establish at least two things: first, that law is a science; secondly, that all the available materials of that science are contained in printed books. If law be not a science, a university will best consult its own dignity in declining to teach it. If it be not a science, it is a species of handicraft, and may best be learned by serving an apprenticeship to one who practises it. If it be a science, it will scarcely be disputed that it is one of the greatest and most difficult of sciences, and that it needs all the light that the most enlightened seat of learning can throw upon it. Again, law can only be learned and taught in a university by means of printed books. If, therefore, there are other and better means of teaching and learning law than printed books, or if printed books can only be used to the best advantage in connection with other means, for instance, the work of a lawyer's office, or attendance upon the proceedings of courts of justice, it must be confessed that such means can not be provided by a university. But, if printed books are the ultimate sources of all legal knowledge, if every student who would obtain any mastery of the law as a science must resort to these ultimate sources, and if the only assistance which it is possible for the learner to receive is such as can be afforded by teachers who have traveled the same road before him, then a university

¹ Harvard college: 250th anniversary, p. 97-98.

and a university alone, can furnish every possible facility for teaching and learning law. I wish to emphasize the fact that a teacher of law should be a person who accompanies his pupils on a road which is new to them, but with which he is well acquainted from having often traveled it before. What qualifies a person, therefore, to teach law is not experience in the work of a lawyer's office, not experience in dealing with men, not experience in the trial or arguments of causes—not experience in short, in using law, but experience in learning law.¹

This you may consider the language of the theorist; but, if so, this theory has an advantage that all theories of education do not have: it is confirmed by those who are regarded as preeminently practical men. I beg leave to cite you the statement of James O. Carter of the city of New York, whom you all know as one of the leaders of the American bar.

I think that the methods that are now pursued, so far as I understand them, are a vast improvement over those with which I was acquainted when I was a member of the school. What is it that students go to a law school to learn? What is it to begin the study of what we call "the law?" What is this thing we call "the law," and with the administration of which we have to deal? Where is it found? How are we to know it? . . . It is found, and it is alone found, in those adjudications, those judgments which from time to time its ministers and its magistrates are called on to make in determining the actual rights of men.

What was our former method of acquiring it? Going primarily to those judgments? No. For the most part the basis of legal education was in the study of textbooks, the authors of which, if they had acquired any knowledge of the law for themselves, must have obtained it by resorting to those original sources. We therefore got it at second hand. I think the result of all investigation concerning the methods by which any science may best be acquired and cultivated, has been to teach us to go to the original sources, and not to take anything at second hand.

Now, is this method open to the objection that the study of cases is apt to make the student a mere "case" lawyer? Not at all. The purpose is to study the great and principal cases in which are the real sources of the law, and to extract from them the rule which, when discovered, is found to be superior to all cases. And this is the method, which as I understand it, is now pursued in this school. And so far as the practical question is

1 ¹ Harvard college: 250th anniversary, p. 85-86.

concerned, whether it actually fits those who go out from its walls in the best manner for the actual practice of the law, I may claim to be a competent witness.¹

To the same effect is the testimony of Hon. Oliver Wendell Holmes,² chief justice of the supreme judicial court of Massachusetts, who commends the method from the standpoint of the professor and judge.

The following statement is from Prof. John C. Gray, distinguished as a lawyer and law teacher:

When I was a law student, I read 20 or 30 textbooks through. I fear little of them remained in my mind. I had to begin again with the study of particular cases and learn my law in that way. We try to save our students that experience, and start them in the way of practical learning three years earlier than if, as is so often the case, they had to acquire such learning after they had been admitted to the bar.³

The third method, which I have ventured to call the laboratory method, and is more widely known as the "inductive method," or the "case system," seems to me to be the best method of teaching law. The lecture system is now very rare. Textbooks are used in the great majority of schools at the present day, but a tendency is noted in even such schools to supplement the textbooks by the study of cases. The cases are not made the basis of instruction in such schools to the exclusion of the textbook. The cases are, as their very name imports, "illustrative" and are less bulky and less numerous than those used in what may be called case schools. Illustrative cases are but a makeshift, more elegantly expressed, a bridge over which the textbook professors are leading themselves and their pupils to legal salvation.

But he would be a very bold man, indeed, who maintained that the case system or any one system could or should be used under all circumstances. The result rather than the method is what every law school has before it. Certain subjects may be and are taught with excellent results from the textbook; occasionally, lectures are and ought to be resorted to; but it is patent

¹ Harvard college: 250th anniversary, p. 61, 62, 63.

² Harvard college: 250th anniversary, p. 72, 73, 75, 76.

Harvard college: 250th anniversary, p. 111.

to all careful observers that the laboratory method, which has revolutionized the teaching of science, may perform a like beneficial service for the science of law, and in fact this system has already rendered this service in those schools where it has been and is used as the basis of instruction.

In speaking of an exclusive system of instruction, Prof. Gray says:

In all law schools, I suppose, the students learn from textbooks, cases and oral instruction. At any rate, they do so here [Harvard]. Each teacher is free to use these means as he pleases. The different professors do actually use them in different ways and proportions.

And Prof. Keener, dean of Columbia law school, says:

There is no uniform method of instruction in this school. Each instructor is at liberty to pursue the method of instruction which in his opinion will be productive of the best results. At the present time three methods of instruction are used.

In closing, I would like to adopt the language of Prof. James B. Thayer:

My experience confirms that of others who have found, in dealing with our system of law, that the best preparation for these exercises is got from the study of well selected cases. As for the methods of teaching, that is another matter. These must, indeed, have relation to any particular methods of study that are prescribed or recommended, but they are not necessarily determined by them. In law, as in other things, every teacher has his own methods, determined by his own personal gifts or lack of gifts—methods as incommunicable as his temperament, his looks, or his manners.¹

Formal discussion

Deputy Sup't Howard J. Rogers — I have been asked in this discussion to take that part of professional education which relates to the teacher. The assignment is accepted gladly, for there is no problem in evolution more attractive, and no problem affect-

¹ The third or case method is used in whole or in part as the basis of instruction in the following law schools: Harvard, Columbia, New York university, Cornell university, Pennsylvania, Columbian university, University of Cincinnati, Western Reserve, University of Illinois, Northwestern, University of Wisconsin, University of Minnesota, University of Iowa, University of North Dakota, Colorado university. University of California, Leland Stanford jr.

ing more vitally the interests of our country, than the development of the profession of teaching. The growth of public interest which has accompanied this development of late has been remarkable.

The commercial spirit in this country has been so intense for the last half century that our people have looked askance, or with a sort of patient tolerance at those who deliberately choose for a profession, letters or arts. The old idea, that, if a boy was not shrewd enough to make a good trader, or keen enough to make a good lawyer, he might still do to teach or preach has had many followers even at a late date. It is not altogether strange that this should be so. Americans have been too busy in developing the country and making it habitable to require a high degree of professional training for any work. When a newly settled territory had need of many physicians and teachers, and could secure only a part of them, a credential or diploma could not be challenged very closely. When the demand greatly exceeds the supply, you are not over particular about the quality of the product. We have suffered the experience of all new nations where the Jack of all trades period must be endured. The wonderful possibilities existent in our material development have bred a spirit of unrest. When a man is likely to be anything from a miner to a minister, he will not spend a great portion of his time in getting too fine a polish in any branch. As John Stuart Mill once said: it is the "fatal belief of the American public that anybody is fit for anything."

But the wealth of opportunities which has heretofore been at the choice of every American must of necessity cease with the more thorough development of our country and its resources. With the stability of commercial and business conditions comes the adjustment of science and arts. And this adjustment curiously enough follows the rule of self-interest. The care of the body and fear of sickness come first—hence the requirements established for the practice of medicine. The care of property and fear of material loss come second—hence the requirements for the practice of law. The concern for the training of the mind

comes last—hence the tardiness in the regulations for the training of teachers. But the kinetic energy of the American people can always be relied on to make up lost time when the emergency demands. And it is a matter of intense satisfaction to the student of politics that the demand for trained teachers is at hand.

The agencies which produce the trained teacher are the normal school, training class, institute, summer school, teacher's college, and departments of education in colleges and universities. Not a normal school can antedate 1840; only nine had been established prior to 1860. The great majority have been founded within 25 years, and anything more than rudimentary training is of later date than that. We have therefore within our personal recollection, the beginnings, the development, and the present status of the professional training of teachers. The growth of normal schools since 1880 has been most rapid. Almost every state has some. Pennsylvania has 13, New York 12, Massachusetts 9. In 1880 for each million of inhabitants there were 240 normal students. In 1890 the ratio was 976 to a million. The courses of study vary in accordance with the locality. In Massachusetts the standard for entrance is graduation from a high school. In New York graduation from a high school having an approved course of study, or an academic diploma, is requisite for the two year courses. For the four year courses a lower entrance standard is allowed. It is only a question of time however when the high school standard will be applied to all entrants. Toward this standard the various schools in other states are approximating. When it is reached, there will undoubtedly be arranged a system of comity whereby credentials of one state will be indorsed or recognized in another. At present this is impracticable.

It has been quite the custom to compare our normal schools with the French and German normal schools to the disadvantage of the former. Whatever *may* have been the fact, this discriminating argument has lost its force. The contrast with the German schools is marked in three particulars: first, the work of the

German schools is devoted solely to training, while the American school does much miscellaneous teaching; second, small classes as against large classes; third, small faculties as against large faculties. The ordinary Prussian normal school requires only nine or 10 teachers, and the average class is about 12 in number. While it would be well if we could approach in some degree this purer form of a training school, it is doubtful, when we take into consideration the demands made on American teachers and the conditions under which they labor, whether the larger atmosphere is not better adapted to our needs.

The French have special normal schools for the primary elementary, superior elementary, and secondary schools. We make no class distinction. But a careful comparison made between the work done by the pupils in the French normal schools, both before and after entering, and the work done by the pupils in our own training classes, normal schools and normal colleges, respectively, shows a balance of a year or more in work in favor of our own school system. We can not introduce this division by schools into our normal institutions, for we teach all pupils alike till well into the secondary grades. We do not undertake the responsibility of choosing a child's vocation for him and training him for it from his earliest years. We leave a little to the Lord and the bent of the child. This distinction goes deep into the differences which underlie the theory of popular education in Europe and in the United States.

The teacher's institute, which in point of time follows the normal school as an agency for training teachers, was organized as a temporary expedient for rural schools to give teachers, in the language of Dr Barnard, "an opportunity to revise and extend their knowledge of the studies usually pursued in district schools and of the best methods of school arrangements, instruction, and government." So much of merit resides in the institute that it has long outlived its primary purpose and is today a powerful agency in giving teachers higher ideals of education, a broader knowledge of the principles of teaching, and enlarging their acquaintance with educational men and with one another. New

York, the pioneer in institute work, is easily the leader of the states today in the equipment and efficiency of this branch of work.

The summer school is a recent institution and is a sort of intermediate between an institute and a normal school. All are directly traceable to the Chautauqua influence.

The teachers training classes have long been established to train teachers for elementary schools. The normal schools and other agencies can not supply the demand. We have in the United States about 430,000 teachers in the public schools. 10% is a reasonable estimate of those who leave the ranks every year. The total number of pupils registered in all sorts and conditions of training schools according to a recent United States report was 90,000, of whom less than one third graduate yearly.

In the state of New York two kinds of classes are maintained; one in villages, incorporated and otherwise, where a year's special training is given. These are the classes transferred in 1889 from the University of the State of New York to the department of public instruction. The other is in cities, under the famous chapter 1031 of the laws of 1895. This act, which has fixed the minimum qualifications for elementary teachers in cities, has proved one of the wisest acts ever placed on a statute book. We lost some sleep a year or two ago over the qualifications for secondary teachers in city schools, and several recommendations were made by the council of superintendents; but, after investigation and a report from every city in the state except New York and Buffalo, we found that of 614 high school teachers employed in the cities and villages of the state, all but 64 had the qualifications recommended, and of these 64 all but 12 had over 10 years teaching experience, and of these 12 all but three had first grade certificates. There were extenuating circumstances in regard to these three, but I have forgotten the most of them just now. So we came to the conclusion that the people, too, were awake on this question and could safely be trusted not to imperil their own interests.

The latest established agency for the training of teachers and one likely to be of incalculable influence, particularly on secondary schools, is the chair of education in colleges and universities. To the University of Michigan and Pres. Angell belongs the honor of first organizing this department in 1879, and the terms of the resolution are worth repeating.

To fit university students for the higher positions in the public school service; to promote educational science; to teach the history of education and of educational doctrine; to secure to teaching the rights, prerogatives and advantages of a profession; to give a more perfect unity to the state educational system by bringing the secondary schools into closer relation with the university.

New York state has developed this idea more completely than any other state, and at present there are 14 colleges and universities which maintain, under the supervision of the department of public instruction, pedagogic courses, graduates from which are licensed to teach in the schools of this state.

The teachers training colleges, such as Albany normal college, the Teachers college of New York city and departments in the universities of Chicago and Wisconsin, cover a field for higher professional training entirely their own. They are surpassed in thoroughness and efficiency by nothing in Europe.

Such in brief and imperfect outline are the various agencies at work in this country for the professional education of teachers. This tendency comes, of course, in response to a demand. No movement can attain the magnitude and impetus of this in our country unless it has behind it the sanction of the people and is in accordance with the spirit of their institutions.

The recognition of the formative power of the schoolmaster in matters of state betokens the security of the state, and the stability of its organization. Judge how logical are the steps in this proposition as without demonstration I recount them. The critical period in the history of this republic is yet to come. The dangers which threaten are of internal origin: illiteracy; socialism; combinations, both of capital and labor. It is neces-

sary that our youth be trained from childhood to maturity in order to meet intelligently and conservatively the duties demanded of them. Their drill ground is the classroom of the public school; their drillmasters the teachers who preside over these rooms. Herein lie the grave duty and responsibility of the teacher; and herein is the vital necessity on the part of the state to provide trained and competent teachers.

Prin. Percy I. Bugbee—Asked as I have been to discuss present tendencies in normal school education, I desire to say that I believe I appreciate the fact that no man's opinion on any subject is entirely without bias, and that my own point of view is that of one in close proximity to the object to be discussed. Still the view of the near observer is not necessarily less fair than the prospect of him who looks on from a distance. The perspective of each is more or less out of proportion, and who shall say which is the truer? I believe it should be borne in mind that the normal school idea is a recent one when compared with the problem of general education. Methodic discussion of the latter was begun 2300 years ago, while the seed of the former was dropped in the soil of the 17th century. The normal school as it is today is a result of slow growth, of many mistakes, of many corrections. No one will presume to say that it is a finished product. There has been much disagreement among its friends, much criticism on the part of its enemies. Whatever good it has accomplished in the past, it will accomplish even more in the future. It is in a state of growth, and no man and no institution constantly growing need fear to meet the world fairly. Its friends covenant that it will be worth more tomorrow than it is today; and we believe it is a fair statement that the art of teaching has been passing out of its old-time empirical stage, and that now there is a condition both rational and scientific.

A present tendency most marked in the normal schools of this state is to differentiate clearly the purpose of these schools and to hold them more distinctly and steadfastly than ever before to this purpose. A normal school is not an academy. It is not a school for college preparation. It should have no academio

department. It is a school whose students purpose to become teachers, and who are being fitted to do educational work of a higher type. We believe that the old-time complaint of the academies of the state against the normal schools has little justification in the conditions of today. Some of the schools now have no academic departments. We believe that none should have any, though here and there an institution, to fulfil an old contract with its local community and the state, is obliged to admit residents of the community to academic instruction. Still even where this is done, it is generally under protest on the part of the normal school management, and is coupled with earnest advice to the candidates for such instruction that they seek the advantages of the nearest high school. This is, I believe, as it should be, for, however earnest in purpose such academic students, their presence in the normal school is certain to occasion more or less diversion of the efforts of its teachers from legitimate purposes and more or less confusion of ideals on the part of the student body.

A second marked tendency of the day is the raising of requirements for admission and the lengthening and improving of courses of study. 10 years ago examinations for admission were set by the normal schools themselves, and there was much laxity in the enforcement of the even meager requirements of that day; while, after a two year course, students were given a life license to teach. Today the minimum requirement for admission is an examination set by the state department of public instruction, rigidly enforced, and equal in severity to that required for a license to teach in the schools of the state. Some years ago the elementary course of instruction was abolished and was superseded by a three year course known as the advanced English course, which also, together with the so-called scientific course, was abolished in September of the school year just completed; and during this year there have been only two full-time courses, a four year classical course and a four year English course, fully equaling the former in difficulty. Besides these four year courses there is a two year course for graduates of high schools,

the requirements for admission to which are in advance of the attainments demanded by most high schools of their graduates. It may be safe to prophesy that at a day not far distant the normal schools of New York will follow the example of the schools of Massachusetts and certain other states and require high school graduation or an equivalent examination for admission to any of their courses.

Improvements in length of courses and standards of admission have been fully matched by the betterment of the new courses in quality. The severest charge ever made against normal schools was that they had set up a fetish of method, and that a knowledge of method was considered a compensation for deficiency in scholarship. However just or unjust this charge may at one time have been, I believe that no stronger conviction prevails in normal schools today than that there is no substitute for scholarship. The teacher who day after day works up to the limit of his scholarship loses self-respect, because he loses the support of moral courage. I hazard the statement that deficiency in scholarship and in scholarly tastes has been and is today the greatest source of poor teaching, and that the intelligent scholar in the teacher's chair who has never heard of method is to be preferred to the man thoroughly trained in all the niceties of method but lacking in scholarship. This is nothing against method, for method is the culmination of the scholarly teacher's equipment; and, as naturally should be expected, scholastic attainment and good method generally are found together. As an instance of the improvement in quality of the normal courses, take the matter of science alone. Under the old courses nine or 10 different sciences were taught, 10 weeks being given to each with the exception of physics and chemistry, which had 20 weeks each. It would seem to the casual observer as if the deliberate purpose of this arrangement was to prevent students from knowing anything accurately or thoroughly. Under the new courses the sciences required are biology, physics and chemistry, one year being given to the first and the second and six months to the last. The advantage of

this arrangement in affording more thorough scholastic training is most apparent, and there is a corresponding improvement in the arrangement of other studies in the course.

But perhaps the most important recent tendency is the change in the training departments of normal schools. It is a function of the teacher to reproduce a part of the school in which he was educated, and it is therefore necessary that the school of children in a normal school shall be a model of efficient instruction and of good discipline. It is pretty generally conceded that a practice school taught entirely by a rapid succession of pupil teachers must necessarily be lacking in permanency of purpose, in vital elements of personality, and, though it may compare not unfavorably with some public schools, still be not worthy of reproduction. On the other hand, a school which is purely a model school, taught only by expert teachers, while it may afford a good example to normal students, fails to give the practical training in instruction and in discipline which is vitally essential. The tendency is strong in normal schools of the eastern states to make the school of children both a model school and a practice school. A considerable part of the teaching of the children is done by expert teachers under the observation of pupil teachers, and the remainder is done by pupil teachers under the careful daily criticism of the model teachers. In some eastern schools a critic and model teacher is provided for each grade or class of children. This condition has been attained by at least one school in this state, and doubtless will be by others as soon as the legislature shall provide sufficient funds for the employment of such teachers. By this arrangement of model and pupil teaching at least three most desirable results are accomplished: the children are better taught, the pupil teachers have a model set them which is worthy of their reproduction, and the critic teachers criticize more sympathetically because they are daily taking a hand at the task themselves.

Finally, just a word in regard to the grade of work for which a normal school may legitimately expect to prepare its students.

It has been said more than once that the function of the normal school is to prepare teachers for the elementary schools or schools whose scope lies well within the high school. I do not know of any one who desires to contradict this statement. Surely this function is a most worthy one and not beneath the dignity of any institution. The need of well equipped teachers for elementary schools is great, and a higher quality of skill and no less devotion are required of teachers who do this work than of those who engage in more advanced instruction. That the scholastic preparation of the teacher should exceed the requirements of the taught by at least a four year course has been repeated so many times that it has become a truism. But, while this statement is undeniable, it is also true that schools and colleges do not hold a monopoly of educational opportunities, and, while they provide good means of education, there are others. The teacher who ceases to be a student on leaving the school from which he is graduated is unfit for any kind of teaching service. In every normal class there are some—and it is the highest function of the school to foster such—who are “lovers not of a part of wisdom but of the whole, who have a taste for various sorts of knowledge, who are curious to learn and who are never satisfied,” who have a hunger and thirst for knowledge and for imparting it to others which can not be suppressed by lack of college training or by anything else, who are teachers because of natural aptitude, because of their training and because of their scholarly spirit. The highest of all tribunals, an intelligent public, may safely be trusted to pass on the merits of such teachers as these, and not infrequently high schools and normal schools, and sometimes colleges, are so fortunate as to secure their services.

Regent Sexton—I can not fittingly say the parting words. But, before bidding you a formal good-by, in behalf of the regents of the University and of the instructors of this state, you who are the university of the state, I would say that we wish to give voice, however feebly, to our gratitude to these gentlemen of distinction who have come from without our fold to enlighten

us and lift our thoughts and encourage us by the utterances that they have made so ably and helpfully. Our gratitude to them is abounding and unmeasured. And to you, instructors, in behalf of the regents, I hope you may have a most happy and a most helpful vacation season; that it may be not only one of great pleasure to you, but that it may reinvigorate your bodies and reinspire your minds so that you will come back and with the old courage take up anew in the fall your labors, which are the most helpful and beneficent in the whole field of human endeavor. We thank you for your attendance here on this occasion, during these days which have marked once again the fact that the annual convocation of the University of the State of New York is, as it ever has been, in its high character the most notable educational gathering in this country. For your faithfulness under the difficulties of excessive heat which have prevailed during these days, the regents will give you even a higher rating than the thermometer has made for itself. You have won by your faithfulness, and specially by your faithfulness in your labors in the schools, the blessings of heaven which surely will be freely accorded to you for the asking. In your behalf we will ask the Rev. Dr Stewart to make the parting invocation.

Dr Stewart—May the grace of our Lord Jesus Christ, and the love of God, and the fellowship of the Holy Spirit, be with us all evermore. Amen.

NECROLOGY

REPORT OF COMMITTEE, C. W. BARDEEN

Barnard. While the last convocation was in session, Henry Barnard lay on his death bed, and the end came on July 5. Common consent gives him the first place in American educational history. He was at the head of the school systems of two states, and of two colleges in two other states, and he was the first

national commissioner of education. His great work was, however, the *American journal of education*, to the 31 large octavo volumes of which he devoted his fortune and the great labor of his life. It is the greatest cyclopedia of education that has been written, and the only extensive cyclopedia of education in English that this generation will know.

He was born Jan. 24, 1811, in the house in which he died. His nearly 90 years had not dimmed his sight, his hearing, or his memory. He never wore glasses; and a day or two before his death he spoke of affairs in China with such a wealth of details as to names and dates that one of his daughters looked them up in the cyclopedia, wondering if it were possible his memory served him so well, and found them correct in every instance.

BOARD OF REGENTS

Harris. Death visited the board of regents Dec. 14, when they lost Hamilton Harris, who honored them and whom they honored.

Gilmour. Neil Gilmour, who died Mar. 31, had been for nine years *ex officio* a member of the board of regents, while superintendent of public instruction.

SCHOOLS OF HIGHER EDUCATION

Potter. Among former college presidents there has been one death, that, on Feb. 7, of Eliphalet Nott Potter, grandson of the most noted president of Union, and son of a professor of Union, afterward a bishop, to whom popular education in New York and elsewhere was greatly indebted. Eliphalet Nott Potter was born in Schenectady, Sep. 20, 1836. After graduation from Union in 1861 and from the Berkeley divinity school in 1862, he was for seven years rector of the Church of the Nativity in South Bethlehem Pa., for two years secretary and professor of ethics at Lehigh university, and for two years associate rector in Troy. In 1873 he became president of Union. He resigned in 1884 to become president of Hobart college, but after 12 years resigned to become professor in St Stephen's college. After two years he became the head of the Cosmopolitan university, but soon

gave it up to take active part in university settlement work, and had since been associated with his brother, Bishop Potter, in procathedral work. During his presidency of Union Dr Potter was instrumental in combining the Albany professional schools with the college and so founding Union university, of which he was the first president.

Wilson. Among college professors, the convocation will specially miss William Dexter Wilson, for he took an active part in its proceedings, and held the office of chairman of its executive committee for six years. He presented papers in 1867 on the "Order of instruction in mathematics", in 1873 on the "Nature of differentials, and the method of finding them", in 1874 on "Negative terms in mathematics", and in 1879 on the "Influence of language on thought".

He was born in Stoddard N.H. Feb. 28, 1816, and was graduated from the Harvard divinity school in 1838. He was for three years a unitarian preacher and then joined the episcopal church. He was professor in Hobart college, 1850-68, leaving there at the request of his former pupil, Andrew D. White, to become registrar of Cornell university and professor of moral philosophy. Since 1886 he had been emeritus professor of Cornell and head of St Andrew's divinity school at Syracuse. In 1848 he published *The church identified*, which has gone through several editions and is still in demand. Among his other books are an *Elementary treatise on logic* (1856), *Psychology comparative and human* (1871), a *Textbook of logic* (1872), *Introduction to the study of the history of philosophy* (1872), *Live questions in psychology and metaphysics* (1877), the *Foundations of religious belief* (1883), the Paddock lectures at the General theological seminary in New York for that year. He was one of the earliest contributors to the *Dial*. He wrote frequently for the *Christian examiner*; was a contributor to the *True catholic* as long as it was published; has been a frequent contributor to the *Church review* for the last 35 years, and to the *Church eclectic* ever since it was started. He contributed several articles to Appleton's cyclo-

pedia, and was the author of the article on "Logic" in Johnson's cyclopedia. In 1874 a membership in the Victoria institute, or Royal philosophical society of Great Britain was offered to him, but he was unable to attend any of its meetings. In 1849 Geneva college gave him the degree of D.D.; in 1868 Bedford university of Tennessee gave him the degree of LL.D.; in 1872 the regents of the University of the State of New York gave him the honorary degree of L.H.D.

He was a man of tenderly loving disposition and of noble character, whom it was a benediction to know.

Tyler. Moses Coit Tyler, who died Dec. 28, was born in Griswold Ct. Aug. 2, 1835. After graduation from Yale in 1857, he studied theology at Yale and at Andover, and was pastor of a congregational church in Poughkeepsie 1860-62. Like Dr Wilson, he subsequently joined the episcopal church, of which he was ordained deacon in 1881. He gave up his pastorate on account of ill-health, and for four years lectured and studied in England. In 1867 he became professor of the English language and literature in the University of Michigan, where he remained till 1881, when he became professor of history in Cornell, subsequently giving his own work to American history.

His principal literary work is an uncompleted *History of American literature* (1878), but he has published also the *Literary history of the American revolution* (1897), *Three men of letters* (1896), *Manual of English literature* (1879), *Life of Patrick Henry* (1888), and the *Braunville papers* (1868). He was editor of the *Christian union* 1873-74. In his lectures and in his books he had the graceful touch of a master of English. The driest parts were imbued with interest. His humor was kindly, but at times, when a righteous indignation was aroused in the man who loved fairness and honesty, his denunciation was severe. His mood was frequently playful; and, when he held up to view many of the incidents of history, the salient points were presented in a way to impress them indelibly on the memory of his hearers.

Spear. Philetus Bennett Spear, who died Jan. 25, was born in Palmyra May 23, 1811, and in 1831 entered the first class in what is now Colgate university. He became assistant teacher in 1835, and was graduated in 1836 and from the seminary in 1838. He was tutor in mathematics 1837-42, adjunct professor of Hebrew and principal of the grammar school 1842-50, professor of Hebrew and Latin 1850-66, and professor of Hebrew and treasurer 1866-89, when he became emeritus professor of Hebrew. After the charter of 1846 he was a sort of committee of ways and means to the treasurer. He stood almost alone against the removal of the institution to Rochester. He raised \$50,000 in 1850, and then \$60,000 more. In 1864 he raised \$82,000, and in 1869-70 \$220,000, and in 1876 \$102,000. In his teaching he was practical, methodical and thorough. For half a century he knew personally every member of the faculty, and every student.

Perkins. Maurice Perkins, who died June 18, was born in New London Ct. in 1835; prepared for Yale college, but was unable on account of ill-health to enter; took a voyage around the world; and on his return was graduated from the College of physicians and surgeons in New York. In 1859 he went to Germany and attended universities there, and on his return was appointed assistant professor in the College of physicians and surgeons. He went from there to Harvard and became assistant in the Lawrence scientific school. In 1865 he was elected professor of chemistry in Union college and subsequently also in the Albany medical college. In 1876 that chair was divided, and he retained that of chemical philosophy and organic chemistry. In 1880 he was made a member of the Schenectady board of health and afterward of the state board of health, and was known in criminal trials as a toxicological expert and an authority.

Huntington. E. A. Huntington, who died July 13, was born in Columbus N. Y. June 12, 1813, was graduated from Union in 1833, taught for a time, and after a private theologic course was ordained in 1837 and was for 17 years pastor of the Third presbyterian church at Albany. In 1854 he became professor of exegesis

in Auburn seminary, retiring from active work in 1892. He was for many years the wise man of the institution, the caretaker, without whose counsel nothing was undertaken.

Sayre. Lewis Albert Sayre, who died Sep. 2, was born in Madison N. J. Feb. 9, 1820, and was graduated from the Transylvania university in 1839, and from the College of physicians and surgeons in 1842. In 1853 he was appointed surgeon in Bellevue hospital, and in 1859 to the Charity hospital on Blackwells island. He was one of the founders of the Bellevue hospital medical college in 1861, and was its professor of orthopedic surgery till 1898, when he was made emeritus professor. He was also one of the founders of the New York academy of medicine, the New York pathological society, and the American medical association. In 1860 he was made resident physician of the city, and held the office during the terms of three succeeding mayors. His annual reports pointed out reforms that are still acted on.

Draper. William Henry Draper, who died Ap. 26, was born Oct. 14, 1830, in Brattleboro Vt., and was graduated from Columbia in 1851, paying his expenses through college by playing the organ at St Thomas's church, and from the College of physicians and surgeons in 1855. After study in Paris and London, he was in 1869 appointed clinical professor of diseases of the skin at the College of physicians and surgeons, subsequently being professor of clinical medicine till 1898, but was emeritus professor till he died. He was a trustee of Columbia university, and had served as president of the alumni association of the College of physicians and surgeons, of which in 1886 he was president. He was distinguished as a general practitioner, and not as a specialist.

SECONDARY SCHOOLS

Superintendents

Montfort. Among superintendents in service the only death is that Dec. 29 of R. V. K. Montfort. He was a graduate of the Albany medical college, and during the war was assistant surgeon of the 124th New York volunteers. In 1872 he succeeded

H. A. Jones as superintendent at Newburgh, and held that office till his death.

Former superintendents

Farnham. Of former superintendents was George L. Farnham, who died Aug. 2. He was born in Richfield in 1824, but moved to Watertown in 1840. He was graduated from the Albany normal in 1847, and, after teaching for two years in Watertown, came to Syracuse and purchased a private school for girls. In 1852 he became principal of Jefferson school, and in 1855 was elected superintendent, serving till 1863. In 1857 he was president of the State teachers association. From 1869 to 1875 he was superintendent of schools in Binghamton, and for the next two years was principal of the Carroll street school. He then went to Council Bluffs Ia., where he remained for three years, when he became principal of the state normal school at Peru Neb. In 1893 he resigned and went to Riverside Cal., where he owned an orange grove, and where he had since resided. He is best known as author of the *Sentence method of teaching reading*, first used in the Binghamton schools and since widely used in Quincy, Amsterdam, and all over the country.

Greene. Freeman A. Greene, who died Aug. 27, was born in Yates in 1844, was graduated from the University of Rochester in 1869, and, after teaching at Yates and at Wilson, was called to Albion, where he remained for more than 20 years. He was a man of pleasant address, good scholarship, and excellent executive ability.

Abbott. Charles R. Abbott, who died Jan. 18, aged 75, began teaching in Westchester county in 1848, and in 1852 became first assistant in what was then the only grammar school. He was principal of the preparatory department of the New Jersey normal 1859-62, and superintendent at Kingston 1862-69. He then became principal of no. 1, Brooklyn, as its third principal under the district system, and was still engaged there at the time of his death.

Principals in service

Norton. Of principals of regents schools in service was Edwin Franklin Norton, who died of paralysis Sep. 23. He was born in Scott N. Y. in 1860, and was graduated from Yale in 1885, afterward taking a postgraduate course and receiving the degrees of M.A. and Ph.D. After teaching in Freehold N. J., and in Preble, Virgil, and Morrisville N. Y., he had accepted the principalship at Cossackie, but was appointed professor of rhetoric in Olivet college, Michigan, and held that position for six years. Returning to this state, he was principal at Middleburg till elected at Bath. He was very much liked at Bath; but, as the opening of the year approached, he was seen to be afflicted with what is called aphasia, and at the opening of school he was in such condition that it was impossible for him to undertake his work.

Cornell. Edwin Cornell, who died of pneumonia Dec. 2 was born in Patria, 1866, was graduated from Cobleskill academy in 1884, and subsequently from the Albany normal. In 1884 he was offered an appointment to Westpoint, but preferred teaching, and was principal at Parish. Here he was remarkably successful, beloved by teachers and pupils, and an example of diligence and conscientious care. His funeral was a village event, attended by all.

Kellogg. Scott W. Kellogg, who died Jan. 27, aged 26, was educated at Alfred university, and had taught in village schools and at Bouckville before coming to Georgetown, where he was principal at time of his death.

Former principals

Of former principals three had subsequently acquired considerable reputation as authors.

Watson. James Madison Watson, who died Sep. 28, was born at Onondaga Hill Feb. 28, 1827, was principal for three years of an Oswego public school, but soon after entered the publishing house of A. S. Barnes & Co. In 1855 his *National first reader* started a

new series of textbooks. He was president and for 15 years corresponding secretary of the New Jersey sanitary association, and for several years a member of the Elizabeth board of education.

Clark. Stephen Watkins Clark, who died Mar. 13, was born in Naples Ap. 24, 1810, and after graduation from Amherst in 1837 was principal at Groton, Elbridge and East Bloomfield, 1845-52. and Homer, 1852-64. He was a brother of Gov. Myron H. Clark. Of his *New method of teaching English grammar* more than a million copies were sold during the first 10 years of its publication, and there were six other books in the series.

Cook. Joseph Cook, who died at Ticonderoga June 24, attracted wide attention from 1877 to 1888 by his Monday lectures in Tremont Temple, Boston, the aim of his work being in a popular way to compare and harmonize the doctrines of theology with the conclusions of science. In his early life he was a teacher in Ticonderoga, and when 18 years old was one of a committee of two appointed to choose a site for the school building.

Other principals

Others may be briefly named.

King. Loren B. King, who died Jan. 18 in Evanston Ill., was principal of Gouverneur seminary 1840-42.

Grant. W. W. Grant, who expired in the schoolroom last May, in Seranton Pa., where he was principal of the high school, had been principal of Union academy, Belleville, 1870-73.

Merritt. Charles Wesley Merritt, who died in East Aurora May 25, was principal at East Aurora 1866-75.

Goodenough. Myron M. Goodenough, who died in Hamilton June 6, aged 73, founded the Hamilton female seminary in 1866, and was principal for a quarter of a century.

Teachers

Rambaut. Of former assistant teachers in regents schools, one should be mentioned here, Mary L. Bonney Rambaut, who died July 24. She was born in Hamilton June 8, 1816, and was

graduated in 1835 from the Troy female seminary, in which she afterward became a teacher. In 1842 she went to South Carolina as a teacher, and afterward taught in Providence. In 1850 she opened the Chestnut street seminary in Philadelphia, in connection with Harriette A. Dillaye, then a teacher in Troy seminary. In 1883 the school was moved to Ogontz, and became one of the most celebrated private schools in the country. In 1888 Miss Bonney retired from the school, and married Thomas Rambaut D.D. LL.D., formerly a college president, who died in October 1890.

Besides her distinguished career as a teacher she became greatly interested in the North American Indians, and in 1879 started a movement that led to a memorial, which she herself carried to the White house, 300 feet long, containing the signatures of thousands of citizens, and leading to the Dawes Indian severalty bill, and thus to Indian citizenship. The Woman's national Indian association was the result of her efforts, and she was the first president.

ATTENDANTS

AT

39th University Convocation of the State of New York

Under names of institutions those not specially designated are teachers and instructors.

The name of a college in curves following the name of a person is that of the institution where he was educated.

Regents of the University

1 William Crowell Doane (Burlington) D.D. LL.D. *vice-chancellor*; 2 Charles E. Fitch (Williams) LL.B. M.A. L.H.D., 3 Orris H. Warren (Oberlin) D.D., 4 William H. Watson (Brown) M.A. M.D., 5 St Clair McKelway M.A. L.H.D. LL.D. D.C.L., 6 Daniel Beach (Alfred) Ph.D. LL.D., 7 Carroll E. Smith LL.D., 8 Pliny T. Sexton (Union) LL.D., 9 T. Guilford Smith (Rensselaer polytechnic institute) M.A. C.E. LL.D., 10 Albert Vander Veer Ph.D. M.D., 11 Chester S. Lord M.A. LL.D., 12 John T. McDonough LL.B. LL.D. *secretary of state, ex officio*; 13 Thomas A. Hendrick (Seton Hall) M.A. LL.D.

University departments

Administrative department. 14 James Russell Parsons jr M.A. (Trinity) *secretary*; 15 Henry I. Knickerbocker, *head clerk*; 16 Minnie L. Vanderzee, *head stenographer*; 17 Elizabeth G. Fealey, *charter clerk*; 18 Catharine Benjamin, *printing clerk*; 19 Grace D. Allen, 20 E. Martile Comstock, 21 Edward R. Evans, 22 Lyman H. Hurd, 23 Adelaide E. Turner, *clerks*; 24 Frederick R. Guardineer, *page*.

College and high school departments. 25 Henry L. Taylor M.A. Ph.D. (Syracuse) *director's assistant*; 26 Herbert J. Hamilton, *director's clerk*; 27 Annie T. Keyser (Cornell) *director's assistant*; 28 Edward S. Frisbee M.A. D.D. (Amherst) *assistant*; 29 Ella L. Richardson, *examiner in drawing*; 30 Everett O'Neill Ph.B. (Cornell), 31 Jane K. Weatherlow B.A. (Wellesley and Chicago), 32 Eugenia Radford B.A. (Chicago), 33 Richard E. Day M.A. Lit.D. (Syracuse), 34 Mary E. Eastwood B.A. (Vassar), 35 Alice H. Hall, 36 Sara L. Gardiner, 37 George H. Quay, 38 Charlotte L. Estes (Vassar), 39 Nita Ford Dustin B.L. (Smith), 40 Horace L. Field (Cornell), 41 Chris A. Hartnagel B.S. (Union), Pd. B. (N. Y. S. normal college), 42 Lena M. Herbert (N. Y. S. normal college), 43 Katherine Hulst B.A. (Syracuse), 44 Julia Bertha Kellogg Ph.B. (Syracuse), 45 Lona E. Morton, 46 Mindo G. Vulcheff M.A. (Princeton) Ph.D. (New York university), 47 Alma E. J. Webster (Oneonta normal), 48 Edna Wensley, 49 Eunice C. Whitcomb Pd.B. (N. Y. S. normal college), *examiners*; 50 Bessie Brock, 51 Florence E. Bentley, 52 Anna E. Fletcher, 53 Helen Huested, 54 Agnes Kenny, *clerks*.

Inspection division. 55 Charles F. Wheelock B.S. (Cornell) *head inspector*; 56 Charles Newell Cobb M.A. (Syracuse), 57 Arthur G. Clement M.A. (Rochester), 58 Charles Davidson (Iowa and Yale) M.A. Ph.D., 59 Eugene W. Lyttle M.A. Ph.D. (Hamilton), 60 S. Dwight Arms M.A. (Hamilton), 61 E. J. Peck (Williams) M.A. LL.D., 62 I. O. Crissy, *inspectors*; 63 Frederic M. Baker, *apparatus clerk*.

State library. 64 Melvil Dewey M. A. (Amherst) *director*; 65 Stephen B. Griswold LL.B. (Albany law school) *law librarian*; 66 Florence Woodworth B.L.S. (N. Y.) *director's assistant*; 67 Salome Cutler Fairchild (Mt Holyoke) B.L.S. (N. Y.) *vice-director library school*; 68 May Seymour B.A. (Smith) *education librarian*; 69 Judson T. Jennings (Union) *reference assistant*; 70 George T. Waterman, *shelf curator*; 71 Ellen Sands Coe, 72 Martha H. Vane, *sub-cataloguers*; 73 Mabel L. Thompson, *sub-shelflisters*; 74 Gertrude R. Gallicenstein, 75 Oscar Frederick R. Treder B.A. (St Stephens) *clerks*.

Home education department. 76 William R. Eastman M.A. (Yale) B.L.S. (N. Y.) *library inspector*; 77 Mabel C. Dobbin Ph.B. (Cornell) *assistant*.

State museum. 78 John M. Clarke M.A. (Amherst) Ph.D. (Marburg) *state paleontologist*; 79 E. Porter Felt B.S. (Boston) D.Sc. (Cornell) *state entomologist*; 80 Margaret Fursman Boynton Ph.B. (Cornell) *assistant*; 81 Joseph Morje, *clerk and stenographer*.

INSTITUTIONS IN THE UNIVERSITY

Colleges for men

Columbia university, New York. 82 Prof. J. McK. Cattell Ph.D. (Lafayette).

Union university, Schenectady. 83 Pres. Andrew V. V. Raymond D.D. LL.D.; 84 Peter Nelson B.A. (Union) *librarian*.

Colgate university, Hamilton. 85 Pres. George E. Merrill (Harvard) M.A. D.D. LL.D.; 86 Dean W. H. Crawshaw M.A. (Colgate); 87 Prof. James M. Taylor (Colgate) M.A. LL.D., 88 Prof. Hinton S. Lloyd (Colgate) M.A. D.D.

University of Rochester. 89 Pres. Rush Rhees M.A. (Amherst) D.D. (Hartford theological seminary).

Manhattan college, New York. 90 Bro. Cantidius (Manhattan), 91 Bro. Maurellan.

St Bonaventure's college, Allegany. 92 Pres. Joseph F. Butler O.S.F.

Canisius college, Buffalo. 93 Rev. R. J. Martin (Johns Hopkins).

St Francis college, Brooklyn. 94 Vice-Rector Joseph Hill [Bro. Paul] (St Francis college).

Colleges for women

Vassar college, Poughkeepsie. 95 Prof. Le Roy C. Cooley Ph.D.

Normal college of the city of New York. 96 Prof. Edward S. Burgess (Hamilton, Johns Hopkins and Columbia) Ph.D.

Colleges for men and women

St Lawrence university, Canton. 97 Pres. Almon E. Gunnison (St Lawrence) D.D. LL.D.

Alfred university. 98 Pres. Boothe Colwell Davis (Alfred and Yale) Ph.D. D.D.; 99 Prof. Alpheus B. Kenyon M.S. (Alfred) *registrar*; 100 Prof. Edward M. Tomlinson M.A. (Bucknell).

Cornell university, Ithaca. 101 Prof. George P. Bristol M.A. (Hamilton), 102 Prof. James Edwin Creighton B.A. (Dalhousie college) Ph.D. (Cornell), 103 Prof. Charles De Garmo Ph.D. (Halle).

Keuka college. 104 Pres. George H. Ball (Grand River, Ohio) M.A. D.D.

Schools of theology

Auburn theological seminary. 105 Pres. George B. Stewart D.D. (Princeton).

St John's college, theological department, Brooklyn. 106 Rev. Andrew C. Murphy C.M. *prefect of discipline*; 107 Rev. George V. McKinny C.M. (St Vincent's seminary, Phil.).

Schools of education

Teachers college, Columbia university, New York. 108 Samuel T. Dutton M.A. (Yale).

New York state normal college, Albany. 109 Mary A. McClelland (N. Y. S. normal college), 110 Kate Stoneman (N. Y. S. normal college) LL.B.

Schools of medicine

Union university, Albany medical college. 111 Willis G. Tucker M.D. *registrar*.

Schools of engineering and technology

Rensselaer polytechnic institute, Troy. 112 Prof. J. G. Murdoch M.A. (Princeton).

Sibley college of mechanical engineering and mechanic arts, Cornell university, Ithaca. 113 Prof. Robert H. Thurston (Brown) M.A. Ph.B. LL.D. *director*.

Academies, high schools and academic departments

Academy of Holy Names, Albany. 114 Sister M. Edelburga, 115 Marie L. Eichelberger, 116 Sister M. Silverius.

Albany academy. 117 Maurice E. Viele, *trustee*; 118 Henry Warren (Yale) B.A. L.H.D. *headmaster*.

Albany female academy. 119 Prin. Esther Louise Camp (Harvard. Chicago, Oxford and Paris).

a See also Troy academy.

Albany high school. 120 Com'r Harlan P. French (Amherst) M.A.; 121 Prin. Oscar D. Robinson (Dartmouth) M.A. Ph.D.; 122 B. O. Burgin (Union) B.E. M.S., 123 Agnes R. Davison, 124 Josiah Gilbert, 125 Austin Sanford (Dartmouth) M.A., 126 Ellen Sullivan.

Alfred academy. 127 Prin. Earl P. Saunders (Geneseo normal).

Altamont union school. 128 Prin. Arthur Z. Boothby (N. Y. S. normal college) Pd.B.

Amenia union school. 129 Prin. William D. Ault.

Amsterdam high school. 130 Prin. James Baird (Amherst).

Argyle high school. 131 Prin. E. M. Sanford (Syracuse and N. Y. S. normal college).

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University of the State of New York

Object. The object of the University as defined by law is to encourage and promote education in advance of the common elementary branches. Its field includes not only the work of academies, colleges, universities, professional and technical schools, but also educational work connected with libraries, museums, study clubs, extension courses and similar agencies.

The University is a supervisory and administrative, not a teaching institution. It is a state department and at the same time a federation of more than 1000 institutions of higher and secondary education.

Government. The University is governed and all its corporate powers exercised by 19 elective regents and by the governor, lieutenant-governor, secretary of state and superintendent of public instruction who are ex-officio regents. Regents are elected in the same manner as United States senators; they are unsalaried and are the only public officers in New York chosen for life.

The elective officers are a chancellor and a vice-chancellor, who serve without salary, and a secretary. The secretary is the executive and financial officer, is under official bonds for \$10,000, is responsible for the safe-keeping and proper use of the University seal and of the books, records and other property in charge of the regents, and for the proper administration and discipline of its various offices and departments.

Powers and duties. Besides many other important powers and duties, the regents have power to incorporate, and to alter or revoke the charters of universities, colleges, academies, libraries, museums, or other educational institutions; to distribute to them funds granted by the state for their use; to inspect their workings and require annual reports under oath of their presiding officers; to establish examinations as to attainments in learning and confer on successful candidates suitable certificates, diplomas and degrees, and to confer honorary degrees.

They apportion annually an academic fund of about \$350,000, part for buying books and apparatus for academies and high schools raising an equal amount for the same purpose, \$100 to each nonsectarian secondary school in good standing and the remainder on the basis of attendance. The regents also granted in 1900 about \$30,000 for the benefit of free public libraries.

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University of the State of New York

INSTITUTIONS IN THE UNIVERSITY JULY 1901	No.	STUDENTS	
		Men	Women
Universities and colleges of liberal arts			
For men	22	3 558	.....
" women	5	.....	3 065
" men and women.....	7	990	744
Total.....	34	4 548	3 809
Professional and technical schools			
Theology	16	955	7
Law	7	2 227	41
Education	3	224	1 548
Medicine	13	3 262	187
Dentistry	3	546	10
Pharmacy.....	5	623	25
Veterinary medicine.....	2	76	.....
Ophthalmology	1	3	.....
Engineering and technology.....	5	1 008	50
Art	3	108	973
Music	4	197	872
Other	17	5 458	2 436
Total.....	79	14 687	6 157
Academies			
Academies (incorporated)	107	4 090	4 772
Senior academic schools.....	4	64	154
Middle "	11	175	266
Junior "	22	429	253
Special	3	963	1 556
Total.....	147	5 721	7 001
High schools			
High schools	344	25 221	34 253
Senior "	36	627	879
Middle "	59	883	1 133
Junior "	155	1 723	2 115
Special "	2	61	34
Total.....	596	28 515	38 414
Organizations for home education			
Institutes	2	.....	.....
Libraries.....	194	.....	.....
Museums	2	.....	.....
Total	198	.....	.....
Affiliated with the University			
Libraries, centers, study clubs, associa- tions, business schools, registered and other organizations.....	645		
Grand total	1 699	453 322	455 223
		108 545	

a Not including 149 men and 158 women duplicated in Cornell and Barlow; *b* duplicated in Syracuse and not deducted because not separated as men and women.

Regents Bulletin

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40th University Convocation

OF THE

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1897	CHESTER S. LORD	M.A.	LL.D.		-	-	-		Brooklyn
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1899	JOHN T. McDONOUGH	LL.B.	LL.D.						Secretary of State, ex officio
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1901	BENJAMIN B. ODELL JR	LL.D.							Governor, ex officio
1901	ROBERT C. PRUYN	M.A.		-	-	-	-		Albany
1902	WILLIAM NOTTINGHAM	M.A.	Ph.D.		-	-	-		Syracuse
									<i>One vacancy</i>

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Regents Bulletin

No. 58

40TH UNIVERSITY CONVOCATION

OF THE

STATE OF NEW YORK, JUNE 30-JULY 1,
1902

SUMMARY OF SESSIONS

1st session, Monday, June 30, 8 p. m.

Convocation called to order by Regent ST CLAIR McKELWAY

Prayer by Rev. Dr WALTON W. BATTERSHALL, Albany

Opening address

Regent ST CLAIR McKELWAY

Address of welcome

Regent BENJAMIN B. ODELL jr, Governor of the State of New
York

Some Fundamental Principles of American Education: Address

President NICHOLAS MURRAY BUTLER, Columbia University,
New York

2d session, Tuesday morning, July 1, 9.30 a. m.

Regent PLINY T. SEXTON presiding

Opening remarks

Regent SEXTON

Reading of Vice Chancellor DOANE's letter

The Elective System and its Limits

President J. G. SCHURMAN, Cornell University, Ithaca

Formal discussion

Beverend Professor TIMOTHY BROSDAHAN, Woodstock (Md.)
College

Professor W. S. MONROE, Westfield (Mass.) State Normal School

Superintendent JOHN KENNEDY, Batavia

General discussion

Professor OREN ROOT, Hamilton College, Clinton

Reverend Professor JOHN O'HARA, St John's College, Fordham

Principal PERCY L. WIGHT, Clinton High School

Inspector ALBERT C. HILL, Department of Public Instruction

Professor MORRIS LOEB, New York University

Principal JOSEPH E. KING, Fort Edward Collegiate Institute

Principal DANIEL C. FARR, Glens Falls Academy

Necrology

CHARLES W. BARDEEN, editor *School Bulletin*, Syracuse

Remarks on the late Regent Warren

Regent PLINY T. SEXTON

3d session, Tuesday afternoon, July 1, 3 p. m.

Regent DANIEL BEACH presiding

Regents Examinations

Regent CHARLES E. FITCH

Formal discussion

Principal CHARLES J. MAJORY, Newton (N. J.) High School

General discussion

Principal GURDON R. MILLER, Matteawan High School

Reverend Professor WILLIAM F. CLARK, College of St Francis Xavier

Requirements for Admission to Medical Schools, including the Combined Baccalaureate and Medical Course

Regent ALBERT VANDER VEER

Formal discussion

President GEORGE E. MERRILL, Colgate University

Secretary ABRAM T. KERR, medical faculty, Cornell University

President RUSH RHEES, University of Rochester

General discussion

Secretary MAURICE J. LEWIS, State medical examiner

Professor MORRIS LOBB, New York University

President JAMES M. TAYLOR, Vassar College

4th session, Tuesday evening, July 1, 8 p. m.

Regent T. GUILFORD SMITH presiding

Education and Efficiency: Address

Professor GEORGE E. VINCENT, University of Chicago

Adjourned

APPOINTMENTS

Convocation council. By appointment of Superintendent Darwin L. Bardwell to succeed Superintendent John Kennedy, the council for 1903 is:

1903 Principal Thomas O. Baker, Brooklyn public school.

1904 Principal Floyd J. Bartlett, Auburn High School.

1905 Principal Myron T. Scudder, New Paltz Normal School.

1906 Dean James E. Russell, Teachers College, Columbia University, New York.

1907 Superintendent Darwin L. Bardwell, Binghamton High School.

College council. By appointment of President Almon Gunnison to succeed President James M. Taylor, and President A. Cameron MacKenzie to succeed President R. E. Jones, the council for 1903 is:

1903 President Nicholas Murray Butler Ph.D., Columbia University

1904 President A. Cameron MacKenzie, Elmira college

1905 President George E. Merrill D.D., Colgate University

1906 President Rush Rhees LL.D., University of Rochester

1907 President Almon Gunnison D.D. LL.D., St Lawrence University

Academic council. By appointment of Principal Frank S. Fossdick to succeed Principal Byron G. Clapp, and Principal George A. Brown to succeed Principal James Winne, the council for 1903 is:

1903 Principal O. D. Robinson, Albany High School

- 1904 Principal J. F. Glavin, St John's Academy, Rensselaer
1905 Principal George A. Brown, Riverhead High School
1906 Principal C. H. Warfield, Little Falls High School
1907 Principal Frank S. Fosdick, Masten Park High School,
Buffalo

Library council. By appointment of Frank P. Hill to succeed J. S. Billings, the council for 1903 is:

- 1903 John E. Brandegge, trustee Utica Public Library
1904 M. Emogene Hazeltine, librarian James Prendergast
Library, Jamestown
1905 James H. Canfield LL.D., librarian Columbia University
1906 H. L. Elmendorf, Buffalo Public Library
1907 Frank P. Hill, Brooklyn Public Library

Medical council. The medical council appointed for 1903 is:

- 1903 H. M. Dearborn M.D., New York Medical College and
Hospital for Women
1904 Willis G. Tucker Ph.D. M.D., Albany Medical College
1905 Dean M. Belle Brown M.D., New York Medical College and
Hospital for Women
1906 William Gilman Thompson M.D., Cornell University Medi-
cal College, New York
1907 Dean George W. Boskowitz M.D., Eclectic Medical Col-
lege, New York

Dental council. The dental council for 1903 is:

- Faneuil D. Weisse M.D.
Charles Milton Ford M.A. M.D.
William C. Barrett M.D. M.D.S. D.D.S.

Veterinary council. The veterinary council for 1903 is:

- James Law F.R. C.V.S.
Alexander F. Liautard M.D. V.M.

ADDRESSES, PAPERS AND DISCUSSIONS**Monday evening, June 30****OPENING PRAYER****BY REVEREND WALTON W. BATTERSHALL, ALBANY**

Almighty and everlasting God, from whom cometh every good and perfect gift, grant, we pray Thee, Thy benediction on this University and Thy inspiration and guidance to those gathered in this convocation for the advancement of sound learning, the knowledge of Thy truth and law, and the upbuilding of Thy kingdom on the earth. Enlighten our minds and purify our hearts, that we, in our place and trust, may be fellow workers with Thee in the rescue of the world from all that enfeebles and degrades it and delays the fulfilment of the vision and the pledge which Thou hast given us in our Lord Jesus Christ. Deepen in us Thy fear and love, that we may glorify Thee and serve our fellow men and lift our lives into Thy great purpose. In all the world, O God, hasten the coming of Thy kingdom, bring the empire of the Prince of Peace, make wars to cease, protect the weak, give enlightenment to the ignorant, teach all the nations of the earth and all races and conditions of men to live in peace and holy brotherhood. Build up the institutions that shelter law and liberty and science, the faiths that make us strong and the hopes that keep us from despair. May this University from year to year be enabled to do a larger work for righteousness and truth. We thank Thee for the blameless life and the high service of its Chancellor, whom Thou hast taken to Thyself. Wilt Thou comfort those who mourn, and may the memory of the blessed dead incite the living to holy purpose and unselfish work. And we pray, specially in his hour of peril, for Thy servant, the King of England. Grant that his life may be spared, that he may be restored to health and strength and that he may be a ruler holding his kingdom in the laws of righteousness and in amity with the nations of the world. Bless this republic. Protect and guide its President, the Governor of this State, and all in seats of legislative and judicial power. Preserve this people from the sins that corrode life and bring

nations to dishonor and decay, from arrogance and greed, from faction and lawlessness and forgetfulness of Thee. All this we ask in the name and for the sake of Jesus Christ, our Lord. Amen.

OPENING ADDRESS

Regent St Clair McKelway—*My friends:* The convocation will be in order. The Regents are glad to have you as guests. Many of you have been with us before. The occasion is yours. Pray make yourselves at home.

We meet under the shadow of sorrow. But sorrow neither supersedes nor suspends duty. Our dear dead Chancellor would have us do here what he has here done in the past—address ourselves to the work which the State expects us to do in its higher educational field. That will be our work during the sessions. Before we start on it, we should thankfully acknowledge our debt to Dr Upson for his service to learning. He was a correct scholar, a stimulating teacher, a sincere and sunny friend and a just and kindly presiding officer. Our board greatly extended its work in his time, and specially during the period of his vice chancellorship and chancellorship. He cooperated with those who turned their faces toward the morrow. Though he preferred the old standards, he was hospitable to the new light, after it had proved its own right and power to shine. The board on its own records will pay tribute to his spirit and to his work. This convocation will rightly honor him if it bears in mind the benediction of his benign life. He rejoiced to meet with us and to lead us. He was cheered and sustained here in the high estimate he placed on his educational calling. Not the least good he did was this: a theologian, he was not a polemic; a preacher, he was not a sectarian. He was as uncensorious in the field of faith as he was liberal in that of learning. The representatives of all religions found him fair and sweet-tempered. Holding to his own views, he most respected those who held to theirs. And none could tell from his votes and words here to which department he belonged among those who feared God and loved man. There will never be a reason for opposing

the choice of ecclesiastics to this board that can ever be drawn from anything this highly spiritualized man was, said or did here. He sustained personal or official relations to universities, colleges, high schools, academies and seminaries. All loved and trusted him. That attests what measure and manner of man he was. He lived a life and died the death of the scholar, the gentleman and the righteous; and may our last end be like his!

And now I would say a word to you about the outlook on education, were not my function only that of a presiding officer and were not others to speak now on special phases or themes of learning here. From them I will detain you no longer than as briefly as bluntly to say this: the people are thinking that education should inculcate morality as well as impart knowledge. They are convinced that the learned professions should require no preparation so long that their intending members must stand in the vestibule of middle life before they can become breadwinners. They are rating the calling of the teacher to be as high a one as there is in the world; one which should be the state's peculiar care alike for the honor of learning, for the securities of citizenship and for the demands and expectations which nation and commonwealth have a need and a right to indulge, concerning ingenuous youth.

The welcome of the State to the convocation will be extended by the Governor of the State, under whose administration the appropriations to learning have been unusually large, and under whose administration the spirit of the gift has been more excellent than the gift itself. I am very sure that, before he extends the welcome of the commonwealth to the convocation, the convocation will give to him on its own account a sincere and heartfelt greeting.

ADDRESS OF WELCOME

BY REGENT BENJAMIN B. ODELL JR., GOVERNOR OF THE STATE OF
NEW YORK

Regent McKelway, ladies and gentlemen: I am pleased to meet the educators of our State and the Regents of the University in this annual convocation, and the pleasant duty of greeting you

I appreciate more than I can express. I extend to you a hearty greeting to our capital city on behalf of the people who believe that the training of the youth is of more importance to the commonwealth than any other function of government. I trust that this convocation may have the pleasing features which are incident to such gatherings, and that the result will prove of great value to the cause of education.

Education may be defined as the evolution of ideas and the adoption of the best thoughts of those who have preceded us. Knowledge and civilization go hand in hand. Opportunities come to everyone, but the trained mind through the power of discernment is better fitted to cope with and conquer the problems of life. A nation is but an aggregation of individuals, and the measure of its prosperity, and the respect which is shown it by other powers depend not so much on its military armament as upon the intelligence of its citizens. Therefore every section of the state is interested in all other portions of the commonwealth and owes to every other locality the duty not alone of providing its children with opportunities to fit for professional, scientific or business pursuits, but of giving them the knowledge which will enable them to understand and appreciate to the full extent their duties and responsibilities as citizens. From the earliest history of our State, dating back to the wisdom and the times of Alexander Hamilton, New York has made education a function of government, an inherent right of the citizen, and has maintained the principle of taxation for and supervision of our educational institutions. From this beginning has grown the University of the State of New York and its development from a mere supervisory body to the directing and controlling factor of all institutions having to do with secondary and higher education.

The common school system of the State, which was originally intended to be incorporated with and be subject to the Regents, has been wisely left under the control and direction of the localities, so that they might govern their own school affairs. With these latter functions the Legislature and the Executive

have seldom interfered. Only when there has been a positive denial or a manifest disinclination to give to a locality the benefits of a concrete and well defined plan of education have local authorities been overridden and a system substituted having for its object a greater benefit than that which was offered under antiquated and useless statutes.

So pronounced has been our advancement along educational lines that our State has become an example for many other commonwealths in the administration of their school systems. As I have said, an educated man is better fitted to grapple with the problems of life than one who has failed to receive the advantages which are so freely accorded. Science, surgery, medicine and the building up of great mechanical and engineering departments in our schools and colleges, while of great importance to the State and contributing to its material prosperity and welfare, are no more essential than that the farmer should guide his plow or the mechanic wield his hammer with intelligence and a knowledge of the result desired to be produced. The Regents of the University have a more important part to fill in the educational work of our great State than those who are charged only with the administration of a separate school or university. It is their function not alone to supervise and to inaugurate such changes as may be deemed beneficial and which the progress of education demands, but it is also their province to stand as the sponsors for such expenditures of the public money as may be required to carry into effect the many wise regulations that from time to time have been instituted.

It is doubtful if many of our people, interested as they are in their own affairs, realize the extent to which our commonwealth has gone in this direction. While the primary education of our children is, of course, the first and paramount duty of the State, it is no less important that there should be brought home to the children of a larger growth opportunities to supplement their earlier education with a more thorough knowledge of literature and science. This the Regents are doing in many ways, but specially in the traveling libraries which they are sending from

place to place in response to such demands as may be made for their use.

In the professions, the wise supervision of the Regents in establishing standards, in fixing the time and course of study and in other directions, has resulted in marked efficiency, so that today the diploma which the young man or the young woman receives under the authority of the Regents means something and passes current and at par in every state and in every country throughout the world.

The Regents are a peculiar body. They are the only state officers elected for life, and they have certain important constitutional prerogatives and rights. Though the members of this body are chosen from time to time by one or the other of the great political parties, the board is absolutely without partizanship and is actuated by the highest motives and the purest sentiment. While its progress and its achievements are the subject for congratulation, its duties are by no means fulfilled, nor is its work accomplished. There are still greater problems confronting it, demanding the most intelligent consideration. A new feature was incorporated into the school law at the last session of the Legislature, by which not only an increased annual appropriation of a quarter of a million dollars was given for primary and common school education, and an increase of \$36,270 for secondary education, but a different principle was established for the distribution of school moneys, namely that taxation for school purposes should be by no means confined to the district receiving the benefit, but on the contrary that the stronger districts owe to the weaker the duty of giving to them a school system equal to their needs. So, too, in the development of the higher branches of education we owe to these districts that are without academies and high schools the same opportunity that has been accorded for a common school education. While it is true that the State has furnished means and opportunities for secondary education, it has been deficient in furnishing opportunities for preparation for the enjoyment of such privileges. I hope to see a system inaugurated soon whereby such pupils as

desire these advantages may receive them without entailing on their parents additional expense. This, perhaps, might be met by a law which would enable the Regents to reimburse those districts on which responsibility might be placed for the additional burdens thus imposed. Education should be free in every respect. Our free school system should not be a misnomer. The privileges which are accorded the more fortunate in life, those more advantageously located with reference to high school districts, should not be denied to those who are less fortunate.

In these days of combination and fierce business competition, when it has been said that the opportunities of the young men and the young women are few compared with those which were accorded our forefathers, we owe to them such a training of the mind as will equip them and fit them to meet these new conditions. While in no way acquiescing in what I believe to be a senseless cry that the door has been closed against advancement, I still believe that, with this further duty of the State performed, through the wise oversight and supervision of the Regents and the Superintendent of Public Instruction, there will be an opportunity awaiting everyone who has the ability to grasp it.

How great, therefore, are your responsibilities and how necessary that you should meet in these annual convocations to discuss conditions and recommend changes deemed of advantage to our educational system. Thousands of young men and young women during the present month have left behind them the joys and pleasures of school life and, strengthened by the knowledge they have acquired, have gone forth into the world with the expectation and hope of successfully meeting the stern realities of life. Before them is the possibility of failure or success, and how important that in their training nothing should have been left undone to imbue them with a determination to succeed and to be the worthy successors of those who have written their names in our history, as great captains of industry, as the successful business and professional men of our time. If we leave this convocation with a determination that those with whom

we have to do and who are to come under our control during the years to come shall be equipped to win success; with a determination that educational facilities shall not be circumscribed by sordid motives; with a determination to turn out into the affairs of life the educated man and the educated woman, who shall always be the best type of American citizenship, we shall have done more for the permanency of our State and of our country than can be accomplished by feat of arms or through commercial successes.

Regent McKelway—We will now be addressed by another son of Columbia. He stands to the university in the same relation that the Governor stands to the commonwealth—he is the executive head, the gubernatorial terminus or top. I am sure that members of previous convocations have been instructed and stimulated by the thoughts which the speaker whom I shall soon introduce has from time to time developed here. But then he was a junior; then he was a relative part of a general system. Now on him as on the editor rests responsibility for what he says. I take great pleasure in introducing to this assemblage President Nicholas Murray Butler of Columbia University, who will now address us.

SOME FUNDAMENTAL PRINCIPLES OF AMERICAN EDUCATION

BY PRESIDENT NICHOLAS MURRAY BUTLER, COLUMBIA UNIVERSITY

It was my good fortune to hear one of General Garfield's most eloquent speeches. From the gallery of a great hall, I looked down on a scene where ambition, envy, and patriotism were all struggling for expression in the national convention of a powerful political party. A candidate for President of the United States was to be chosen. The walls had trembled at the mighty cheers that thousands of strong, eager men had given for the leaders of their choice. Finally, amid perfect silence, General Garfield rose in his place among the representatives of Ohio and made his way to the platform to put before the convention the name of the man whom he preferred above all others for President of the United States. He had been greatly moved

by the tempest of cheering and applause which had greeted two of the names already in nomination, and he sought to lead the convention away from the passionate feeling of the moment to a more sober and substantial standard of judgment. With solemnity and deliberation, General Garfield opened his speech with these sentences:

I have witnessed the extraordinary scenes of this convention with deep solicitude. Nothing touches my heart more quickly than a tribute of honor to a great and noble character; but, as I sat in my seat and witnessed this demonstration, this assemblage seemed to me a human ocean in tempest. I have seen the sea lashed into fury and tossed into spray, and its grandeur moves the soul of the dullest man; but I remember that it is not the billows, but the calm level of the sea from which all heights and depths are measured.

When the storm has passed and the hour of calm settles on the ocean, when the sunlight bathes its peaceful surface, then the astronomer and surveyor take the level from which they measure all terrestrial heights and depths. . . . Not here in this brilliant circle where 15,000 men and women are gathered, is the destiny of the republic to be decreed for the next four years. Not here, where I see the enthusiastic faces of 756 delegates, waiting to cast their lots into the urn and determine the choice of the republic; but by four millions of Republican fire-sides, where the thoughtful voters, with wives and children about them, with the calm thoughts inspired by love of home and country, with the history of the past, the hopes of the future, and reverence for the great men who have adorned and blessed our nation in days gone by, burning in their hearts—*there* God prepares the verdict which will determine the wisdom of our work tonight.

Often in listening to debates and discussions of matters far removed from things political, this counsel of Garfield has recurred to me. It seems to be so easy, in education as elsewhere, to yield to the pressure of momentary feeling or temporary expediency and to lose sight of the deep, underlying principles which should, and in the long run must, control our action and our policies, that we need constant reminders of what those principles are. Therefore, in accepting the invitation to address the convocation of the University of the State of New York, I shall endeavor to place before you, though with necessary

brevity, some matters which appear to me to be fundamental in our American educational system and policy. I am the more ready to do this because during the last two or three years, in important debates, I have noticed that some of these considerations have been overlooked or their existence flatly denied.

First and foremost, I name this proposition and hold it to be fundamental to our American educational system: While all forms of education may be under government control, yet government control of education is not exclusive, and the national system of education in the United States includes schools and institutions carried on without direct governmental oversight and support, as well as those that are maintained by public tax and administered by governmental agencies.

Some very important consequences follow from the acceptance of this principle. A nation's life is much more than an inventory of its governmental activities. For example, the sum total of the educational activity of the United States is not to be ascertained by making an inventory of what the government—national, state and local—is doing, but only by taking account of all that the people of the United States are doing, partly through governmental forms and processes and partly in non-governmental ways and by nongovernmental systems. In other words, the so called public education of the United States, that which is tax-supported and under the direct control of a governmental agency, is not the entire national educational system. To get at what the people of the United States are doing for education and to measure the full length and breadth of the nation's educational system, we must add to public or tax-supported education, all activities of similar kind that are carried on by private corporations, by voluntary associations and by individuals. The nation is represented partly by each of these undertakings, wholly by no one of them. The terms national and governmental are happily not convertible in the United States, whether it be of universities, of morals or of efficiency that we are speaking.

This point is of far-reaching importance, for it has become part of the political jargon of our time that any undertaking

to be representative of the nation must be one which is under governmental control. Should this view ever command the deliberate assent of a majority of the American people, our institutions would undergo radical change and our liberties and right of initiative would be only such as the government of the moment might vouchsafe to us. But we are still clear-sighted enough to realize that our national ideals and our national spirit find expression in and through the churches, the newspaper press, the benefactions to letters, science and art, the spontaneous uprisings in behalf of stricken humanity and oppressed peoples, and a hundred other similar forms, quite as truly as they find expression in and through legislative acts and appropriations, judicial opinions and administrative orders. The latter are governmental in form and in effect; the former are not. Both are national in the sense that both represent characteristics of the national life and character.

The confusion between a nation's life and a nation's government is common enough but so pernicious that I may be permitted a few words concerning it. When Hegel asserted that morality is the ultimate end for which the state—that is, politically organized mankind—exists, he stated one of the profoundest moral and political truths. But it is pointed out to us by political science that, before any such ultimate end can be gained, the proximate end of the development of national states must be aimed at. The state operates to develop the principle of nationality which exists among persons knit together by common origin, common speech and common habitat, through creating and perfecting two things, government and liberty. The first step out of barbarism is the establishment of a government strong enough to preserve peace and order at home and to resist successfully attack from without. This accomplished, the state must turn to the setting up of a system of individual liberty. It does this by marking out the limits within which individual initiative and autonomy are permitted and by directing the government to refrain from crossing these limits itself and to prevent anyone else from crossing them.

After government and liberty have both been established, then all subsequent history is the story of a continually changing line of demarcation between them, according as circumstances suggest or dictate. In the United States, for example, the post-office is in the domain of government; the express business and the sending of telegrams are in the domain of liberty. In different countries, and in the same country at different times, the line between the sphere of government and the sphere of liberty is differently drawn. In Germany the conduct of railways is largely an affair of government; in the United States it is largely an affair of liberty. Schools, for example, are today much more an affair of government than ever before, but they are still an affair which falls in the domain of liberty as well. In short, government plus liberty, each being the name for a field of activity, gives the complete life of the state; government alone does so just as little as the sphere of liberty alone would do so. These principles are all set forth with great lucidity and skill by my colleague, Prof. Burgess, in his work entitled *Political Science and Comparative Constitutional Law*. In discussing this distinction he writes¹:

It is often said that the state does nothing for certain causes, as, for instance, religion or the higher education, when the government does not exercise its powers in their behalf. This does not at all follow. If the state guaranties the liberty of conscience and of thought and expression, and permits the association of individuals for the purposes of religion and education, and protects such associations in the exercise of their rights, it does a vast deal for religion and education; vastly more, under certain social conditions, than if it should authorize the government to interfere in these domains. The confusion of thought upon this subject arises from the erroneous assumptions that the state does nothing except what it does through the government; that the state is not the creator of liberty; that liberty is natural right, and that the state only imposes a certain necessary restraint upon the same. . . . There never was, and there never can be, any liberty on this earth and among human beings outside of state organization. . . . Mankind does not begin with liberty. Mankind acquires liberty through civilization. Liberty is as truly a creation of the state as is government.

¹1:87-89.

A written constitution, it may be added, is a formal act of creation of a government and a careful delimitation of its powers. It also defines the sphere of individual liberty, directly or indirectly, and so the individual is protected by the state against the government. Through the government he is also protected against encroachment from elsewhere. In the Constitution of the United States, for example, the individual is guaranteed by the state the rights peaceably to assemble and to petition the government for a redress of grievances, and the government must both refrain from invading those rights and prevent others from invading them. If the government should fail to do this, the state which created the government would surely remodel or destroy it.

I shall not apologize for this excursion into the domain of political science, inasmuch as I hold the distinction between state and government to be of crucial importance for right thinking on the larger problems of our educational polity. When once the distinction between state and government is grasped, and also the further distinction between the sphere of government and the sphere of liberty, then it is seen to be a matter of expediency, to be determined by a study of the facts and by argument, whether a given matter—such as support of schools or the control of railways and telegraphs—should be assigned to the sphere of government or to the sphere of liberty.

In the United States there are three different types of educational institution, all resting on the power of the state. One of the three depends wholly and one partly on the government. The third type is without any governmental relationship whatever. The three types are these:

- 1 Those institutions which the government establishes and maintains, such as the public schools, the public libraries and the state universities;

- 2 Those institutions which the government authorizes, such as school, college and university corporations, private and semi-public in character, which gain their powers or privileges by a charter granted by the proper governmental authority, and

which are often given aid by the government in the form of partial or entire exemption from taxation;

3 Those institutions which the state permits, because it has conferred no power on the government to forbid or restrict them, such as private-venture (unincorporated) educational undertakings of various kinds.

Our American educational system is made up of all these, and whether a given school, college or university is national or not does not in the least depend on the fact that it is or is not governmental. France and Germany have great national universities which are governmental; England and the United States have great national universities which are nongovernmental. Oxford and Cambridge are no less truly English, and Harvard and Columbia are no less truly American, because their funds are not derived from public tax, and because the appointments to their professorships are not made or confirmed by government officers. Whether a given institution is truly national or not depends, in the United States, on whether it is democratic in spirit, catholic in temper, and without political, theologic or local limitations and trammels. It may be religious in tone and in purpose and yet be national, provided only that its doors be not closed to any qualified student because of his creed.

It is worth noting that, while in the United States the government bears nearly the entire brunt of elementary education, it finds a powerful ally in nongovernmental institutions in the field of secondary and higher education. The statistics gathered by the commissioner of education show that for the year ending June 30, 1900, of all elementary school pupils 92.27% were enrolled in governmental institutions, while for secondary and higher education the percentages were 73.75 and 38.17 respectively. In other words, nongovernmental institutions—those which are loosely described as private schools and colleges—are instructing about $\frac{1}{3}$ of the pupils of elementary grade, about $\frac{1}{4}$ of the pupils of secondary grade, and about $\frac{3}{8}$ of the pupils of higher grade. Almost exactly $\frac{1}{10}$ of the whole number of pupils of all grades are enrolled in nongovernmental,

so called private, institutions. It is just this word "private" which increases the confusion against which my argument is directed. It is my contention that none of these institutions are properly described as "private"; they are all public, but not all governmental. If this point is clear, then we shall have escaped the fallacies and dangers that follow from confusing tax-supported, governmental undertakings with public tendencies and movements. In education and in our political life generally, the public tendencies and movements are a genus of which governmental activities are a species.

As a second fundamental principle of our American educational system, I name this: The duly constituted authorities of any school district or other political unit may establish and maintain schools of any kind or grade for which the voters consent in regular form to bear the expense.

There is a widespread belief that elementary education under government control is a matter of right, but that secondary and higher education under government control are improper invasions of the domain of liberty. There is no ground in our public policy for this belief. The government has the same right to do for secondary and for higher education that it has to do for elementary education. What and how much it shall do, if anything, in a particular case, is a question of expediency; the right to do as much as it chooses is unquestionable.

On this point there is an important decision,¹ made by unanimous vote of the Supreme Court of Michigan in 1874, which may fairly be taken to represent our established policy. The opinion was written by Justice Thomas M. Cooley, one of the most learned and authoritative of American constitutional lawyers. The decision was rendered in a suit, known as "the Kalamazoo case," to restrain the collection of such portion of the school taxes assessed against the complainants for the year 1872 as was voted for the support of the high school and for the payment of the salary of the superintendent of schools in school district 1 of Kalamazoo. The position of the complainants, as

¹Michigan reports, 30:69-85.

stated by the court, was as follows: While there may be no constitutional provision expressly prohibiting such taxation, the general course of legislation in the state and the general understanding of the people have been such as to require instruction in the classics and in living modern languages in the public schools to be regarded as in the nature not of practical and therefore necessary instruction for the benefit of the people at large, but rather as accomplishments for the few, to be sought after in the main by those best able to pay for them, and to be paid for by those who seek them, and not by general tax. And further, that the higher learning, when supplied by the state, is so far a matter of private concern to those who receive it that the courts ought to declare the state incompetent to supply it wholly at the public expense.

In answer to this contention the court expresses surprise that the legislation and policy of the state were appealed to against the right of the state to furnish a liberal education to the youth of the state in schools brought within the reach of all classes. "We supposed," adds the court, "it had always been understood in this state that education, not merely in the rudiments, but in an enlarged sense, was regarded as an important practical advantage to be supplied at their option to rich and poor alike, and not as something pertaining merely to culture and accomplishment to be brought as such within the reach of those whose accumulated wealth enabled them to pay for it." The court then passes in review, in most instructive fashion, the development of the educational policy of the state from the beginning, and concludes, as follows:

We content ourselves with the statement that neither in our state policy, in our Constitution, or in our laws, do we find the primary school districts restricted in the branches of knowledge which their officers may cause to be taught, or the grade of instruction that may be given, if their voters consent in regular form to bear the expense and raise the taxes for the purpose.

In consonance with this opinion is one delivered by the Supreme Court of Missouri in 1883,¹ in which it is held that the

¹See Missouri reports. 1882-83. 77:485-89.

term "common" when applied to schools is used to denote the fact that they are open and public to all rather than to indicate the grade of the school, or what may or may not be taught therein. The court also holds that the term "school" of itself does not imply a restriction to the rudiments of an education.

It is interesting to contrast these decisions in Michigan and in Missouri with the conclusion reached by the Court of Queen's Bench in England in 1901 in the now famous case of the *Queen v. Cockerton*,¹ in which it is expressly held that it is not within the power of the school board to expend money raised by local taxes on any education other than elementary. The terms of the education act of 1870 and of the many acts supplementary thereto no doubt justified the court's decision, but the fact that such a conclusion is bad public policy has been brought to the attention of a large number of thoughtful persons, and has had no small part in the present educational debate, which is much the most important matter before Parliament and the English people.

A third fundamental principle is this: The schools which are maintained by governmental authority are established in the interest of the whole people and because of the controlling conviction that an instructed and enlightened population is essential to the perpetuity of democratic institutions and to their effective operation. The schools are therefore a proper charge on all tax-paying persons and property, and not merely on those whose children receive instruction therein. Nor are they in any sense schools which are provided for the poor or the unfortunate.

When stated, this principle seems axiomatic. Nevertheless, it is openly or impliedly denied with surprising frequency. It is safe to say that in all of our large cities there is a class of persons, by no means inconsiderable in number, who look on the tax-supported schools as they look on almshouses and asylums. Such persons regard the schools as a part of the community's charitable or philanthropic equipment. In my view, on the other

¹See Law reports, King's Bench. 1901. 1:322-60, 726-40.

hand, the schools are a part of the community's life. They are not merely to give relief or shelter to individuals, they are to minister to the democratic ideal. The very children who sit on the benches are regarded not merely as children, interesting, lovable, precious, but as future citizens of a democracy with all the privileges and responsibilities which that implies. Over 70 years ago Daniel Webster stated this principle in language which can not be improved. "For the purpose of public instruction," said Webster in his oration at Plymouth on Forefather's day in 1820, "we hold every man subject to taxation in proportion to his property, and we look not to the question whether he himself have or have not children to be benefited by the education for which he pays. We regard it as a wise and liberal system of police, by which property, and life, and the peace of society are secured. We seek to prevent in some measure the extension of the penal code by inspiring a salutary and conservative principle of virtue and of knowledge in an early age. We strive to excite a feeling of respectability, and a sense of character, by enlarging the capacity and increasing the sphere of intellectual enjoyment. By general instruction, we seek, as far as possible, to purify the whole moral atmosphere; to keep good sentiments uppermost, and to turn the strong current of feeling and opinion, as well as the censures of the law and the denunciations of religion, against immorality and crime. We hope for a security beyond the law, and above the law, in the prevalence of an enlightened and well-principled moral sentiment. . . . And knowing that our government rests directly upon the public will, in order that we may preserve it, we endeavor to give a safe and proper direction to that public will. We do not, indeed, expect all men to be philosophers or statesmen; but we confidently trust, and our expectation of the duration of our system of government rests upon that trust, that, by the diffusion of general knowledge, and good and virtuous sentiments, the political fabric may be secure as well against open violence and overthrow as against the slow but sure undermining of licentiousness." Here we have in the words of our

greatest expounder of the underlying principles of American polity a statement of the philosophic basis on which our tax-supported school system rests. We may wish that these schools did many things differently, we may not have children to send to their classrooms; nevertheless, they are our schools because we are American citizens, and we owe them our loyal service as well as our ungrudging support. Anyone who wishes, for personal, social or religious reasons, to have his child receive a training other than that which the tax-supported schools give, is at liberty to make such provision for his child as he chooses; but he is not thereby released from the obligation resting on him as a citizen to contribute to the support of the tax-supported schools. It follows, too, that the parents of those who are pupils in the tax-supported schools have no peculiar rights in connection with the policy of those schools that are not shared by all other citizens. The schools are for the people as a whole, not for those of a district or ward, or of a political party or religious communion, or for those who are either poor or rich. We poison our democracy at its source if we permit any qualification of this fundamental principle.

It is sometimes gravely argued that positions as school officers or teachers should be given only to those who live, at the moment, in the civil community or subdivision in which the school in question is situated. This is the theory that the schools exist not for the people or for the children, but in order that places may be provided for the friends, relatives and neighbors of those who are charged for the time being with the power of appointment. It is an undemocratic theory because it substitutes a privileged class for open competition among the best qualified. Pushed to its logical extreme, it would look first in the ranks of the descendants of the aborigines for persons to appoint to posts in the educational system. Very few Americans live where their grandparents lived, and it is usually those who have come most recently to a city, town or village who are loudest in insisting that no "outsider," as the saying is, be given a place as teacher or superintendent. The democratic theory,

on the contrary, asks only for the best, and, if the community can not provide the best, it holds that such community should enrich itself by bringing in the best from wherever it is to be had. As teaching becomes a profession, the teacher and school officer will acquire a professional reputation and status which will make short work of town, county and even state boundaries.

These three principles have been chosen for presentation and emphasis at this time because, though each of them is often denied, I believe them to underlie our whole educational system and to condition all our clear thinking and right action concerning it. They are, briefly, that

1 American education is far wider than the system of tax-supported schools and universities, numerous and excellent as those schools and universities are. All schools, colleges and universities, tax-supported or not, are public in the important sense that they all reflect and represent some part or phase of our national life and character.

2 There is no restriction on the amount, kind or variety of education which a district, town or city may furnish, save that which is found in the willingness or unwillingness of citizens to vote the necessary taxes.

3 The tax-supported schools are public schools in the fullest possible sense, and are not maintained for the benefit of persons of any special class or condition or from any motive which may properly be described as charitable or philanthropic.

The constant application of these principles in educational debates and discussions would bring definiteness and clearness into many places that are now dark and uncertain, and would greatly promote the interest which we all have at heart—the conservation and upbuilding of our American democracy.

Regent McKelway—Our State Library, under the charge of Dr Dewey, falls in the domain of government. The reception which will occur there in honor of Governor Odell and of Dr Butler and of those who may assist them falls in the domain of liberty, and I am sure that we shall delightfully exemplify the final point of Dr Butler's address by not only obtaining the best

for our guests of honor, but by being under no necessity for going abroad for what we have at home.

Tuesday morning, July 1

Regent Pliny T. Sexton—*Members of the convocation*: The great honor of presiding at this session of this most notable of convocations comes to me because of absences which we all greatly regret.

Our renowned Vice Chancellor, the good Bishop Doane, is away taking a needed long rest on a distant ocean shore. He was very anxious to return and be with us today, but has wisely yielded to constraining advice. Surely we all unite in most earnestly hoping that his great disappointment, and ours, may be compensated by his earlier and more certain restoration to health and vigor and the longer continuance on earth of his great and varied usefulness.

But if not with us in person, he is here in spirit, as assuredly is our beloved Chancellor Upson, who so recently has spoken his valedictory to the schools of earth and been admitted with acclaims to the university of heaven, for which none was ever better prepared. I shall not detain you with extended remarks on the services and character of our great dead Chancellor. My words would be but feebly cumulative to the merited eulogies of Chancellor Upson which in the last few days have been spoken from platforms and pulpits and given forth by an appreciative public press. And, particularly, I could not helpfully add to the admirable, just and feeling tribute rendered to the dear Chancellor by his long-time brother Regent, Dr McKelway, in his opening address to this convocation last evening.

But I may relieve my heart by saying that I greatly loved Chancellor Upson. In this I was not singular, for he was greatly beloved by everyone who knew him. It was his faculty for winning the hearts of people, that added so much of far-reaching, enduring power to his labors in this life, and made him so helpful as an educator. The thousands of pupils who came under his guidance as a professor, both in college and theologic seminary, became his warm personal friends, and

they rise up all over the land, gratefully attributing in large degree that which is of most worth in them and has been of meritorious achievement in their lives to the enduring inspiration and influence of Chancellor Upson's ministrations to them as their mentor and instructor. How delightful are such rewards for faithfulness in that great profession to which you are nobly devoting your lives.

As I have already said, our absent chieftains, Chancellor Upson, now of heaven, and Vice Chancellor Doane, resting at present on the seacoast of Maine, are both with us in spirit. Of the former, the latter shall now speak to you, even though with the voice of another; and I will ask your worthy secretary, Dr Parsons, to read to you the thoughts of Vice Chancellor Doane, which with fitting consideration he has sent to us on paper.

Vice Chancellor Doane's letter—*Gentlemen of the University Convocation:* You will, I think, be patient with me if I crave the privilege of sending to you a brief word of welcome to my dear old city of Albany; mingled with a message of condolence and of disappointment: condolence, in our common sorrow, that our beloved Chancellor, on whose presence and presidency we had so confidently counted, has laid aside his earthly duties and his earthly honors to pass into the fuller and higher service of his Master and ours, and, as we confidently believe, to the higher honors which are the heritage of the saints of God; and of disappointment and very great regret that, under the advice of my physician, though in large degree restored to health, I am compelled to be absent from this convocation. The latter concerns me alone; but you will let me assure you how keenly I feel the loss of the inspiration and pleasure of taking my place in the distinguished gathering of the men and women who come, as to a waiting threshing floor, to bring the sheaves of their gathered wisdom and their garnered experience to this teachers harvest-home. The great absence today is the absence of the Chancellor, from whom I parted, it seems only yesterday, in the full freshness of his youthful spirits, with the unquestioned expectation that he would be here to preside, to make you welcome, to season, with the salt of his ripe wisdom and his ready wit, the words he would have spoken in his opening address. And what a Chancellor he has been! By most marked tokens of personal preparation and providential indication, Dr Upson's long and varied career moved on and up from the high

honors of his graduation at Hamilton College to his place of teaching in the college which decorated him with his degree and which he adorned by 17 years of incomparable service. Nor were the intervening steps of his pastorate in Albany and his theologic professorship in Auburn devious departures from the consistency of his direction to the high office of Chancellor of the University of the State of New York; which embraces within the scope of its responsibilities the high schools, the academies, in one of which he began his training, and the colleges and professional schools, which are the strength and pride of the University. He brought to the duties of his office as Regent and as Chancellor, first of all, the love of learning, which had filled his life from boyhood on. To this was added the technical skill, which comes only when the student has passed from the earlier and easier stage of elementary and preparatory work to that severer and sterner study, which marks and makes the teacher, the professor, the preacher, the man who is "ever learning," and becoming more and more "able to come to the knowledge of the truth." Alike from the pulpit, from the professor's desk, from the chair of theologic instruction, equally from the professorship of pastoral theology and from the practical exercise of the pastoral office, Dr Upson entered on the inheritance of the promise of the Hebrew prophet, as one of the men who "be teachers," who "shall shine as the brightness of the firmament." During the 28 years of his membership of the board of Regents he gave most assiduous and intelligent attention to the important questions which come before it; and, when he withdrew from the active duties of his professional life, his mind and time were exclusively devoted to the service of the University and to the constant and complicated technical details of the Chancellor's office. I believe that this occupation, and his joy and pleasure in it, prolonged his life and sweetened its later years. Certainly his presence brought always a sense of cheer and brightness into the meetings of the board. Kindly and courteous and cordial, with the quick wit, appreciating and not seldom originating the humor, which often relieved the stress of strained situations and softened asperities in the heat of discussions, he was a potent and important influence in the settlement of many a vexed question of differences and difficulties. And underneath the gentleness of his personality was a power of righteous indignation, pouring itself out, at times, when rightly roused, which, like the rumbling of a volcano, whose crater is grass-grown and bright with flowers, showed the kindled fire of warm and deep-seated convictions, and the fearless adherence to principle and duty.

Greatly revered and greatly beloved, the University, and I am sure the University convocation, stand together today, grateful and glad for the distinguished example and the devoted service of the late Chancellor, "sorrowing most of all" for the word that must be spoken, that here on earth "we shall see his face no more". To you and me, as teachers, his life as a preacher of the everlasting Gospel, and a teacher of truth, which however human is always also divine, combines and commends the sacredness and dignity, the religiousness and the responsibility, of the office of teacher.

Regent Pliny T. Sexton—Educators: In my opening words I characterized this as a most notable convocation, and it justly should be so regarded, aside from its other distinguishing features, specially for the epoch-making address delivered to us last evening by the noble chief magistrate of this great commonwealth, Governor Odell. He then made one of the most important educational utterances of a generation. A half century has well passed since earnest agitation secured legislation intended to make education free in the common schools of our State. But, like all great reforms, that benevolent movement had its succeeding period of discouragement and it was not till 1867—a good generation ago—that our present system of free schools was irrevocably established. Educators whose experience makes them keenly awake to the educational needs and aspirations of growing children, and all thoughtful people, generally, who realize that education by the state most largely justifies itself as a means to an end—the endowment of the state with enlightened citizenship, have long been anxious that public educational opportunities should not be circumscribed by any local barriers. In other words, it has anxiously been wished that the waters of the public springs of knowledge should be absolutely free to all willing to partake thereof. But, better than any attempts to paraphrase, let me read to you a few of the immensely important and encouraging words spoken to us last evening by our most enlightened Governor. They mark an educational advancement by which both he and this State will be more lastingly and worthily distinguished than by almost anything of recent occurrence.

A new feature was incorporated into the school law at the last session of the Legislature, by which not only an increased annual appropriation of a quarter of a million dollars was given for primary and common school education and an increase of \$36,270 for secondary education, but a different principle was established for the distribution of school moneys, namely that taxation for school purposes should be by no means confined to the district receiving the benefit, but on the contrary that the stronger districts owe to the weaker the duty of giving to them a school system equal to their needs. So, too, in the development of the higher branches of education we owe to those districts that are without academies and high schools the same opportunity that has been accorded for a common school education. While it is true that the State has furnished means and opportunities for secondary education, it has been deficient in furnishing opportunities for preparation for the enjoyment of such privileges. I hope to see a system inaugurated soon whereby such pupils as desire these advantages may receive them without entailing on their parents additional expense. This, perhaps, might be met by a law which would enable the Regents to reimburse those districts on which responsibility might be placed for the additional burdens thus imposed. Education should be free in every respect. Our free school system should not be a misnomer. The privileges which are accorded the more fortunate in life, those more advantageously located with reference to high school districts, should not be denied to those who are less fortunate.

These words are full of encouraging inspiration. Teachers, they betoken the near coming of a day when your opportunities and responsibilities will immensely broaden.

And how fortunate we were last evening in having the noble words of Governor Odell so forcibly and helpfully supplemented by the admirable address of the president of Columbia University. Under the superstructure of this new departure, this great educational advancement, raised in mid air before our eyes by our governor, Dr Butler's address constructed impregnable foundations.

The groundwork for such increased educational opportunities being so thoroughly laid, we will pass today, in our appointed task, with more freedom of conception (and with greater need than otherwise therefor) to the consideration of educational methods; and most happy are we in having the great privilege

of listening in the opening address on the subject of the elective system and its limits to the eminent president of Cornell University, Dr Schurman.

THE ELECTIVE SYSTEM AND ITS LIMITS

BY PRESIDENT J. G. SCHURMAN, CORNELL UNIVERSITY

The subject assigned for our consideration this morning is "The Elective System and its Limits." It may be well to begin by asking why the elective system is to be considered at all. There was some generations ago no talk of an elective system. There has been a change in the world which has forced this subject on our consideration, and, whatever attitude we take, the question itself will not down.

But that change is obvious on a moment's consideration. Knowledge has multiplied. The curriculum of the modern university includes subjects which it would take any single individual a lifetime, I will say not to master, but even to become cognizant of their elements. As late as the 18th century the facts were otherwise. I once heard Mr Gladstone say that Leibnitz was probably the last great mind which was able to compass all human knowledge. Leibnitz lived in the 18th century. I suppose there has been no genius since his time who was able to master even the rudiments of all human knowledge. Compare the curriculum of the modern university with the curriculum of the colleges of the 18th century, and one becomes aware of the fact that new humanities even, like the modern languages and other literature, subjects which had no existence in the old-fashioned college curriculum, nowadays receive attention together with subjects like history, economics and political science of which the older universities took no account. Add to all this the fact that physical science is for the most part an achievement of the last two or three generations, and one becomes aware of the nature of the problem which confronts us. Formerly, in the 15th, 16th, 17th and perhaps in the 18th century, you could lay out before your students a program of all existing knowledge and require them to enter all the provinces thereof. Today the educator's work brings us face to face with

the necessity of a choice of subjects. Hence selection of studies of some kind or other is a necessity. It may be made by the individual student, it may be made by his parent, it may be made by his teacher, it may be made by the college into which he goes; but selection of some kind is absolutely necessary.

How, then, shall our modern student elect his studies? In the first place, he may ignore everything else excepting Latin, Greek, mathematics, physics or natural philosophy as it used to be called, and metaphysics and ethics. These were the staples of the old-fashioned college curriculum. The history of the civilized world shows that these subjects have in them a potency to train the intellectual powers of men and in no inconsiderable degree to develop, refine and train their esthetic emotions. It would be unworthy of me or of you to deprecate the old-fashioned college curriculum which has produced what is best in the modern world in the way of education, and I myself feel very great sympathy with the young man who, on entering college, simply ignores everything else whatever and determines to walk in the way in which his fathers and forefathers and ancestors walked for many generations before. But I do call attention to the fact that the young man who so walks elects his studies. He elects them quite as much as his college "chum" who ignores most of these subjects and studies English, French and German, history and political economy, mathematics, physics and chemistry. And I think it rather important to insist on the fact that the student who pursues the old-fashioned college curriculum elects his studies quite as much as the student who takes what we call the newer humanistic disciplines or the modern sciences.

Secondly, a student entering a great modern university with its extensive curriculum might select those subjects which have a direct bearing on his future profession or career. If he is to become a physician, he might select botany, physics, chemistry, histology, physiology and anatomy, all these being subjects embraced in the academic department of a great modern university. If he intends to be a clergyman, he might elect Greek,

Hebrew, ethics, metaphysics and medieval history. If he intends to be a lawyer, he might elect economics, political history and constitutional law. If he intends to be an engineer, he might elect chemistry, physics, and pure and applied mathematics. Far be it from me to pronounce any of these courses illiberal; and today many students are making just such a selection, and it is what the great majority of parents desire. I do not think it is a false conception of education to prepare men for their work in life, but I do think it an inadequate conception, and it is certainly open to one criticism. It takes as its standard not cultured manhood but professional efficiency. Great is the *professional* man, greater still is the *man*; and the criticism I should make on such a program is that it sacrifices manhood to professionalism.

In the third place, your student, when such an extensive program is spread out before him, may elect such studies as he specially likes. That is often regarded as a peculiarity of the elective system. It enables students to take what they like, and a boy's tastes might so run, or, what comes to the same thing, he might think his tastes so organized, that he would be justified in spending the whole of his time (let us take an extreme case) on mathematics, or on Greek or Latin or history or political science or on the sciences of nature, and after four years devoted to such specialization he would come out with his bachelor's degree, as we say an educated man. But it is a notorious fact that in other spheres of action we do not regard likes and dislikes as safe guides to conduct. Likes and dislikes are more or less arbitrary and accidental in their origin. They are very fickle and unstable in their character. Their nature is often unanalyzable, and in general we think it unsafe to follow them. I do not see why a criterion which is unsafe everywhere else becomes safe when you apply it to an educational theory. Nor am I certain that it would become safe even if you postulate—what I for one am not prepared to postulate—a constant relation between liking and aptitude on the one hand and between dislike and incapacity on the other. I mean I

should not be prepared to follow this educational criterion even if a student took the subjects for which he had a capacity and which he liked and eschewed the subjects for which he had no capacity and which he disliked; for, in the absence of any other criterion or standard, I do not know why I should conclude that a liberal education consists in developing merely the powers we have. Conceivably a liberal education may consist in producing balance and equipoise among the powers and capacities of the soul; and, if so, this particular system we are now considering would fail to realize such an educational result. And, notoriously, we can count that man educated only with some kind of qualification, who, though he knows a great deal about some one thing, is for the most part ignorant of everything else. We must count that man educated with a restriction, I say, who, whatever his knowledge of Greek or Latin, is ignorant of all natural science or history or economics or philosophy; and equally must we call that man uneducated, or educated with some limitations, who, whatever his achievements in the realm of natural science, has never felt his soul thrill with the delights of humanistic study—literature, art and philosophy.

What, then, shall our student do? Manifestly he needs a criterion. He needs some standard for his guidance; and what shall that standard be? It is often said we have such a criterion in the conception of education as the development of the faculties, and that a student should elect studies which develop all the faculties, or the great representative faculties, of the mind. Man, it is said, is a creature who has powers of observation, of imagination, of reason, of emotion and of will. The student should elect studies which tend to develop these various powers. I am much more deeply convinced that studies do develop the faculties of the soul than I am satisfied of the ability of any one to designate what particular study develops any particular faculty. Take the emotions. I am inclined to think, to say nothing of churches, that a really good theater, such as existed at Athens in the fourth century before Christ, would do more

for the education of the emotions than the studies of any college course however selected. Take the will. It is a notorious fact that the will is developed, not in the cloisters of a college, but in rough and tumble contact with the actual world, with the world of fact and of force.

Or, even if you restrict yourself to the intellectual powers, you do not altogether escape the difficulty; for who shall say what study develops observation? It is often assumed that the sciences develop the faculties of observation. I think that they do. I am not at all convinced, however, that they are more efficient in that regard than history or even grammar. Or take the reasoning powers. You say they are developed by mathematics. But I am not at all certain that the modern classical philologist does not give his students as good a training in reasoning as the mathematician does. Or take the imagination. We say it is stimulated by poetry. But in another man it may be stimulated by music and in still another by descriptive geometry; for it was the great philosopher Kant who declared that the two things which filled him with awe were as wide apart as the moral law within and the starry heavens above.

Now, while it is true that education develops these powers, it is a truism, and it does not afford a practical criterion for the organization of any course of study. We do not know enough about the capacity of the different subjects to develop the different faculties. What remains? I think we may find some help if we look at it, not from the subjective point of view, but from the objective point of view; not in its relation to the knowing mind, but in relation to the world of fact which is without. And, looking at it in that way, we shall find that, apart from theology, all human knowledge has to deal with two objects and but two. One of these objects is man, what he is, what he has suffered, what he has done, what he has created; and the group of studies dealing with man I shall call humanistic studies. These humanistic studies embrace language, literature, art, philosophy and political institutions—everything that man has created or produced, everything that records what has happened

to man, everything that attempts to describe what man is. On the other hand, there is the world about us, the universe which constitutes our environment. There is therefore another group of studies, dealing with nature. We may call them naturalistic studies. They embrace all the scientific disciplines or the sciences of nature. And so I say, theology apart, we have two and but two possible kinds of human knowledge. One is humanistic, the other is naturalistic, or, as we are more apt to say, scientific. And I think the powers of the human mind are likely to realize themselves by contact with these two spheres of reality, the human sphere or the self on the one hand, and that which is opposed to the self or the objective world on the other.

And now, if you will turn with me for a moment to the history of education, you will find that this criterion has, more or less, always been admitted. The Greek boy, the Athenian boy, centuries before the beginning of the Christian era, studied the humanities. It is true he had no Latin; it is true he had no foreign language whatever; but he had his own vernacular, and he committed the gems of poetry which are embalmed in that vernacular to memory. He studied the national history and traditions, along with theology, or mythology. He studied the beginnings of mathematics, elementary as they were. It can scarcely be said that he studied the sciences of nature, for they did not exist, but he studied philosophy.

Turn again to the medieval curriculum. It embraced the humanities—first Latin, and afterward Greek and Latin. It embraced the sciences, notably astronomy, though there was very little of science then in existence. It embraced mathematics, which I ought to have said before is the key to natural science; for without it no great advancement can be made in any natural science whatsoever. It embraced philosophy, philosophy being the fundamental discipline both of man and of nature, the one discipline which combines both humanistic study and naturalistic or scientific study.

I say, therefore, that, when we look at the history of education, and combine it with the reflections we have just made, we

are justified in drawing this conclusion—that the great essentials of a liberal education are first of all the humanities, in the broadest sense of the term, secondly the sciences of nature, thirdly mathematics, which is the key to the sciences of nature. And I make the general assertion that all higher education from the beginning has substantially followed these principles. The difficulty comes in their application; and I shall now venture to enter on the thorny path of applying these principles to present practice. First of all, let us take mathematics, which I have described as the key to the sciences. It also has a disciplinary value of its own. It does train the mind to habits of reasoning. Abraham Lincoln said, after he had gone through six books of Euclid, “Now I understand what reasoning is”; and I am inclined to think that the boy who has taken arithmetic, algebra and geometry as prescribed for admission to our colleges gets from these studies all the discipline in reasoning that mathematics can give. I am not saying that that is the object and end of mathematics, but merely as a disciplinary study, I conceive that this work is accomplished when the boy is prepared to enter college. Shall we, then, drop mathematics? I answer no, if he intends to pursue any science, for he will find, whether that science be physics, chemistry or biology, that he can make scarcely any progress beyond the elements unless he have mathematics up to the calculus. If he does not intend to pursue any science, I do not see that he need continue the study of mathematics for disciplinary purposes. But, before I get through, I hope you will agree with me that all our boys should study at least one science during their college course, for which, therefore, they would need mathematics.

Secondly, take philosophy, which has always been a discipline in our higher institutions. More attention was paid to it in the middle ages and in previous centuries than in our own time; but I am convinced that at least one course in metaphysics remains an essential of the higher education; and, while many of our universities have made all this work elective, I am pleased to say, so far as my observation goes, that a very considerable num-

ber of students do elect such courses, particularly the elementary courses in logic and psychology and ethics. At Cornell University there are between 150 and 200 taking such a course, the work being purely elective. I say that both reflection and the history of education agree in confirming the value of philosophy as an essential of a liberal education.

Now I come to the remaining two groups, about which undoubtedly there will be more difference of opinion. I refer to the physical sciences and the humanities. I put the humanities first. I have no doubt about it, that the proper study of mankind is man. I believe, and I think that the great majority of educated men believe, that the humanities are the most important element in a liberal education. I was talking only the other day to Lord Kelvin, the most distinguished living physicist, and he said to me, "I think that all young men before they come to study physics, should have had a good training in the humanities." "So far as my experience goes," he added, "that class of men make the better students of the sciences." I put the humanities first, and I use the term as I have used it throughout in its broadest sense. I include under it Greek and Latin, English, French, German, Italian and other modern languages, history—ancient, modern and American—economics, political science. All these are humanities, and all, it seems to me, have an educative value; many of them have the same sort of educative value. Shall we, then, drop Latin and Greek and take French and German as a substitute? Well, that is a difficult question to answer. I shall only express my profound sympathy with the popular instinct which all through the United States in our high schools is giving the place of prominence to Latin and to German. It is a rough compromise which the practical American mind is making. It seems to me a very safe one. If the boy is not going to be a theologian and has not a fine literary taste, but is likely to find his way into some of the professions or into business, I believe that a better discipline for him than Latin and Greek is Latin and a modern language. It strikes a safe average between the requirements of the ancient

civilization and the demands of the modern. Greek and Latin had their place in the college curriculum, but French, German, and other modern tongues must be provided for today, and their literatures must now be recognized. The popular instinct, as I have said, seems to be recognizing them in an eminently scholarly and practical fashion.

What about Greek? I say it with perfect conviction, that I believe Greek is too good for nine tenths of our college and university students. But, if a boy has a fine literary taste, if he will spend years on the study of Greek, so that he comes to read it as you and I read French and German, or as Macaulay read Greek, with his feet on the fenders, then I believe it is the most excellent and ennobling of all the humanistic studies; but it is for the exceptional man, and for the exceptional man who will put a great deal of time on it. For such men it is the duty, not only of the colleges that require it, but of the great universities which have made it an elective, to provide in the most liberal fashion for its study, and, so far as my observation goes, that has been done in splendid fashion by the larger universities which have made the subject elective.

What of the sciences? I have already said that I regard the humanities as the most important constituent of a liberal education; but, living as we do in the 20th century and in a day when man has come to know during three generations more about the physical world in which he lives than his predecessors knew during the long period of human history, I can not but feel that a man's education is one-sided who has not studied at least one of the sciences of nature. I do not say many, I say one; because one will familiarize him with the scientist's method of work, and one will open to him at least one road to the center of the infinite cosmos. Here, then, is the ideal and practical program which anyone can work out.

I want now to show how the practice in institutions which have made their curriculums elective will satisfy this standard. I will take only two universities with which I am most familiar, one being the one I have the honor to represent, the other the

oldest of American universities. First Harvard University. I find in the report of the president and deans that in the year 1900, of all students entering the academic department, or what is there called the college, 75% dropped mathematics immediately after satisfying the entrance requirements and matriculating into the university. I find also that for the same year and in the same institution 45% of students immediately dropped the classics on entering. 35% did continue classics of some kind, Greek or Latin or both, for one year, and dropped the subject at the end of that year. That is 80% of the entering class took no classics after the close of the freshman year and 45% took no classics after matriculation, and 75% took no mathematics at all after entering. That shows that other branches besides the ancient classics are now being accepted by our students and professors as capable of liberalizing and humanizing the mind; and, if we followed out the details at Harvard University, we should find that there has been a great development in the departments of history and political science and in the modern languages.

In the case of Cornell University, we have studied the electives of the class which entered in 1897 and graduated in 1901. We have studied the electives every year, and we have made our tables, not in terms of the individual student, not taking account of numbers of students who select such and such a course, but of the percentage of elections in the different subjects. That is, suppose we represent by 100 all the elections made; then certainly we might determine the percentage by counting what proportion of the 100 went to mathematics, what proportion went to the ancient languages or to modern languages or to the sciences. That is the way we have compiled our tables at Cornell University for the class entering in 1897 and graduating in 1901. We find that of 100 choices of study, the class of 1901 in its freshman year devoted 16 to ancient languages, in its sophomore year 10, in its junior year 7, in its senior year 6. We find that the same class, of 100 choices of study, devoted to English and other modern languages in its

freshman year 46%, in its sophomore year 42%, in its junior year 33%, in its senior year 25%. Or, if we add the two together, and so determine the total percentage of choices devoted to linguistic study for the class, we get the following: in the freshman year 63 out of 100; in the sophomore year 52, in the junior year 41, in the senior year 31. More than half of all the elections of all the students, if you average them, fell to linguistic study.

Taking history or political science, of 100 choices we find that in the freshman year 11 were devoted to this subject, in the sophomore year 24, in the junior year 25, in the senior year 29. As the choices in the languages fall off from the freshman year to the senior year, the choices in history and political science rise from 11 to 29 or 30.

Take philosophy, which is not open to freshmen. In the sophomore year 10% of choices went to philosophy, in the junior year 10%, in the senior year 13%.

Take mathematics. In the freshman year 9% of choices went to this subject, in the sophomore year 3%, and in the junior and senior years 2% each.

Take physics and chemistry. I think most of you will be surprised to find, in a university where all B.A. work is made elective, how large a number of students still devote themselves to the humanities and how small a number to the sciences. Physics and chemistry in the freshman year received 6% of the choices, the same in the sophomore year, in the junior year the same, in the senior year 4%.

Take the other group of sciences that we used to call natural history (botany, zoology, etc.). In the freshman year they received 7% of the choices, in the sophomore year 4%, in the junior year 5%, in the senior year 2%.

I believe that in the great majority of our institutions that have the elective system students follow the old ways of the higher education. They are devoting most of their time to the humanities; they are devoting a small portion of it to mathematics and science; they are devoting a larger portion to philosophy. The great change, when you compare the curriculum of

modern times with that of one or two generations ago, is that, whereas formerly it embraced only those humanities which we call Greek and Latin, today we have modern languages, history, economics, and political science added to the list; and the student who devotes his time to the humanities may, therefore, not be studying Greek and Latin at all. Yet he satisfies the rational and historic test of a liberally educated man.

Reverend Professor Timothy Brosnahan—It is a great gratification to me to be able to say that I thoroughly assent to the main principles of education as exposed by the distinguished president of Cornell University. On the other hand, however, he has put me in an embarrassing position. He has presented so clearly the need and importance of certain studies for liberal culture, that I feel I should apologize to you for occupying any of your time this morning, since I can only say imperfectly what has already been said so well.

My first difficulty regarding our subject of inquiry, "The Elective System and its Limits," is that I have an insuperable dislike to discussing a question that has not been defined. For a number of years the elective system has been a matter of much controversy and some disagreements. Its advocates have been men of mental energy and argumentative skill. Yet I do not think that they have so precisely designated its metes and bounds as to segregate it from other policies of education to which it may bear an extrinsic and superficial likeness. Any arrangement of the curriculum that allowed choice between classified groups, or permitted election within characteristic departments of study, or that left the student at liberty to pursue within definite limits accessory studies of his own choice, while prescribing studies that are regarded as essential to a liberal education, has been assumed by many to be the acceptance in principle of the elective system. It can not however have escaped anyone who has given some reflection to the subject, that these different schemes of education may be and often are distinct and contrasted in purpose, tendency and result. As long therefore as educational policies radically distinct are

grouped under one head because of accidental contact at one point, so long shall we in discussing this matter continue, like the friends of Job, "to wrap up sentences in unskilful words."

What is the elective system then? We know its original source, its historical growth and its main habitat today. It ought not to be difficult to define it. It is, if I understand it, a theory of education based on two fundamental postulates. First, it attributes equivalent educational values to all studies that have been recognized by educators as disciplinary. It teaches that the mental training given by one well taught study is as truly liberalizing as that given by another. These are almost the words of one of the ablest defenders of the elective system. Secondly, and as a logical consequence, it holds that prescription of any kind whether regarding groups, or within departments, or of individual studies is arbitrary and unreasonable. As a corollary of these two postulates, we have the shibboleth of the elective system: that prescription of studies is beyond the capacity and outside the function of the educator, and that the individual should choose the studies which shall discipline and develop his mind.

I am aware of course that there are other assumptions, psychologic, economic and social, underlying the policy of freedom for college students in their choice of studies; but the two that I have mentioned do, I think, from an educational viewpoint differentiate the elective system from other systems to which the term is often loosely applied. Furthermore, they are necessary postulates of that system; for whoever concedes that the specific training given by one class of studies can not be supplied by another must logically admit the necessity of selecting and reducing to a unified system the prescribed studies which contribute, each in its complementary province, the rounded and harmonious development that is universally understood to be the outcome of a liberal education. Unless, therefore, we are prepared to maintain that a novice in life's experience, to whom the battle of life seems little more than a strenuous autumn holiday; an untried optimist, who dreams "long, long thoughts,"

yet withal has a horizon limited by the interests of youth; a being who by some wise provision of nature is healthily free from introspection, improvident and buoyantly trustful of the future, prodigal of his hours and days, thinking life is long; who was intended by his Creator to be the object of some one's experienced love, wise devotion, and skilled guidance—unless, I say, we are prepared to maintain that this catechumen in the temple of learning and culture is capable of determining the studies by which his mind is to be cultivated to its fullest and widest capacity, we must grant that those studies are in some way to be determined by professional experts, whose previous training, long experience, and mature conservatism fit them for so delicate a function.

To what extent, therefore, should the elective system be limited? If we admit the fundamental postulates of that system, we can assign no limit except the inability of an educational institution to supply professors for all the possible studies that are disciplinary in effect. If we reject these postulates, then we must deny it the title of a system. A system is a number of parts, an assemblage of facts, a combination of principles and conclusions, or a union of activities so connected, arranged, disposed or ordered as to blend into unity and make a coherent whole. But the policy of having boys choose from a bewildering collection of studies those that for reasons of youth appeal to them personally, independently of any coordination of the studies among themselves or of any subordination of studies to the whole, or of the whole to an educational aim and purpose, is the negation of system. Rather, it seems to me, it ought to be called educational anarchy. Prince Kropotkin describes philosophic anarchy as an ideal of society in which each one is governed by his own will; in which, all authority having been abolished, all men will conspire to attain the common good through free initiative, free activity and a sense of civic fraternity. It would not be impossible to accommodate this description to the elective system, so that anarchy would be the elective system applied to government, and the elective system would be

anarchy applied to education. The problem under discussion would in this supposition be reduced to the question: How extensively may anarchy in education when nominated a system be employed in the intellectual formation of youth?

However, we who reject the fundamental postulates of the elective system are not straightway unburdened of all perplexities. "With good methods," said a young and enthusiastic college president over 30 years ago, on the occasion of his inauguration, "we may confidently hope to give young men of 20, or 25, an accurate general knowledge of all the main subjects of human interest, besides a minute and thorough knowledge of the one subject which each may select as his principal occupation in life." That confident hope, we may be sure, was never shared in by men of years and experience, and, if we may interpret facts, is not now entertained by him who gave expression to it when he stood, elated and exultant, on the threshold of his career. The world of knowledge is too vast. Nor is it the primary purpose of a liberal education to give young men of 20 or 25 an accurate general knowledge of all the main subjects of human interest; but to give mental discipline, development, and cultivation. Such studies, therefore, should be used in its communication as will most effectively accomplish this purpose. Choice of some kind is inevitable, whether it be made by the young man beginning his college career or by one professing to be an expert in the matter. If we profess to be educators, it is incumbent on us to choose the studies which shall most effectually give a liberal education.

The only question is: May that choice be lawless or must it be determined by principles? I am confining the question to college students, to those namely who are candidates for the baccalaureate, "the customary evidence of a liberal education." University students are presumed to have the mental and moral maturity requisite for exercise of intelligent choice; and I mean by university students those who, having acquired the basis of a liberal education, are raising thereon a superstructure of special learning. These, I say, are presumed to have acquired habits

of industry, application and industry, habits of self-restraint and seriousness. They are presumed also to have gained some knowledge of the multiplied bearings of sciences on one another, their internal sympathies, and the comparisons and adjustments they admit and demand.

Supposing, therefore, that different classes of studies have distinct and peculiar educational values; that skill in the qualitative analysis of a complex chemical compound gives no power of analyzing an oration of Burke, an ode of Pindar, or a fallacy of Kant; that mathematical acumen is not literary taste, and that this in turn does not give historical insight; supposing, furthermore, that the degree of bachelor of arts has a definite meaning, and is not as insignificant in the college world as the title of colonel is in Kentucky, I submit in the first place that the studies chosen should be such as will give the most effective general training with the largest and most fundamental knowledge. That is to say, keeping in view the primary object of education, which is not proximately to fit a student for some special avocation or profession, but to turn the freshman into an exact and vigorous man, a ready and flexible man, a rounded and finished man, the studies prescribed should be so chosen, classified and graded that they may be adapted to the mental growth of the student and the orderly unfolding of knowledge. And, if I may be permitted to make a personal profession of faith on this point, I should say that educators are capable of making such a classification of studies, or, if they can not, that they should abdicate their pretended functions. In my judgment, language and literature, history and philosophy are the leading factors of a liberal education; not however the exclusive factors. I am in accord with the president of Cornell University in thinking that today some science and some mathematics should be prescribed. But, as instruments of culture, the efficacy of literature, philosophy and history is paramount; their fruits can not be produced vicariously by mathematics or the natural sciences. These bring the student into contact with the material aspects of nature, unfold to him the interdependence

and laws of the world of time and space, and exercise his powers of observation, of synthesis, and inductive reasoning within the lower domain of visible nature. Literature, history and philosophy effect a higher union. They are manifestations of spirit to spirit. They reveal higher laws, superior to and independent of the physical laws of the universe—the laws that govern the formation and growth of civilization. By their study and for their acquirement the whole mind of man is brought into widest and subtlest play. These studies are the highest forms of esthetic art. The young man who, during his college career, neglects them or assigns them a subordinate place is, so far as liberal culture is concerned, a freshman on the day of his graduation, though proclaimed a bachelor of arts by his alma mater.

I submit in the second place that the college student should be engaged in the studies that give the mental development and equipment signified by the degree he is to receive. If the purpose of his studies is to obtain a definite degree, whether professional, scientific or liberal, the college or university is bound before conferring such degree to prescribe the exact studies that are productive of the mental training and learning indicated by the degree. This principle is unchallenged so far as professional and scientific schools are concerned. No institution having any regard to its standing in the community would venture to permit absolute freedom of choice in the studies that lead to the degree of doctor of medicine, master of electrical engineering, or bachelor of science in agriculture. It is only when we come to the liberal degrees that the outlines become dimmed, vague and shadowy, and that we are asked to announce to the world of letters that as educators we do not know precisely what a liberal education is.

In conclusion, permit me to say that in the short time at my disposal I felt that I could do nothing more than give you my personal convictions on this matter. As a consequence, my remarks may appear to have taken on a dogmatic character. If such has been the case, I ask you to attribute it to the exigencies of conciseness.

Regent Sexton—We are greatly obliged to Professor Brosnahan for coming from his distant jurisdiction to enlighten us with his thoughts. He recognizes, as did Dr Schurman, that this great question, which perhaps we may speak of as that of educational foreordination or elective freewill, is of concern not only to our colleges but to other educational institutions; and I am sure that you will be more than glad to know what Professor W. S. Monroe, of the state normal school at Westfield Mass., thinks on this subject.

Professor Will S. Monroe—I certainly was very glad to hear President Schurman say that election of studies is not a matter of isolated growth but belongs to the general movement that we call modern western civilization. I presume there was a very little election years ago in Paris, when thousands of young men chose to leave William of Champeaux and go out to live in a stubble where mud huts were extemporized in order that they might hear the varied kinds of instruction given by young Abelard, who had broken away from the fixed courses in the Paris schools. I presume there was also a little election some years ago when young men in Germany chose to go to the *Realschule* and at a later period to the *Realgymnasium* because those institutions provided the kind of instruction that they thought they needed. In Germany a young man elects the institution in which to prepare for the university, as Professor De Garmo aptly remarked recently in the *Educational Review*. He may go to the *Realschule* if he wishes to enter a higher commercial school, or he may go to the *Realgymnasium* or to the *Gymnasium* if he needs the humanistic training that will be required in the university, more particularly for the theologic and for the philosophic courses. In America he must have opportunities for election in the high school. So I may say, what seems to be a trifle out of the line of discussion this morning, that there is perhaps some demand for election in our high schools, because there is little opportunity with us to elect institutions. We have only few institutions of the diverse German type in America—the Latin high school, the classical high

school, the English high school; but for the most part, our young people attend a common secondary school. I have something to do with young people who come from high schools, who come, to a very large degree, from institutions where there is very liberal opportunity for election, from such high schools as that at Springfield Mass.; and my experience with the results of such elective secondary schools convinces me that there is no real reason for insisting on combinations or sequences simply because they have been used through long years, specially if there are other apparent needs; and, as in the case of the young men who followed the lectures of Abelard, there should be no good and sufficient reason why some elective opportunities should not be accorded, for there is no established kind of education, no fixed type of instruction, no traditional character of institution exclusively fitted to give these young people just what they all need.

There are too, some very singular misconceptions with reference to the application of the elective system. As the previous speaker has said, election has not been well defined. What we mean by election in one section of the country, we do not understand as election in another section. I think some of these misconceptions, however, have been well answered. I refer specially to the able address of President Eliot before you several years ago, and also to that of President Butler before this convocation five years ago. One of these misconceptions is that our students take easy courses. President Eliot seven years ago and Dr Butler later bore definite testimony to the fact that the great difficulty with the young men was to prevent them from taking work that was too difficult, carrying work that was too heavy; in reality, to prevent overwork and strain. President Eliot in his reports for 1884 and 1885 followed through these two classes the studies elected; and, if you will go back and examine the four years of studies elected by these young men, you will agree, I think, with President Eliot in his conclusion that they elected the most difficult studies; and, if you will compare the course of study in force at Harvard, there is no ques-

tion as to the amount or the character of the work which the college required of these men in the studies elected. So I say that students do not elect the studies that are easy, and I was specially glad to hear President Schurman this morning make the statement that there is no inordinate election of science, as is generally assumed—even though the languages and specially the linguistic studies are passing into the background. President Eliot testified before you that there is no difference of opinion in Harvard, and that there has not been for 10 years, as to the value of a literary training, and specially as to the efficacy of English. Four years ago Professor Shaler bore testimony of a similar character in an address before the Harvard Teachers Association.

Then, too, there is very little random election of studies. The assumption seems general that there is little restraint on the part of the university or on the part of the student in elected studies. It is a well known fact that, wherever the elective system is a part of the educational scheme, there are graded series of studies; and no friend of the elective system, so far as I know, dreams of advocating license and anarchy in education any more than we dream of license and anarchy in social life. The institution, the home, the family, the professor, in other words all who are interested in the welfare of those who are to take a definite course of instruction of this character, have something to say concerning the studies elected.

There is another point that seems to me very important. President Butler, I remember, touched on it several years ago, saying that under the elective system we have brought into our institutions a very much larger number of young men and young women than we were able to bring in under the old system. If I remember correctly, President Butler said that we have today only about one fifth of the young men and the young women in our high schools that ought to be there, and we have only about one tenth in our colleges that ought to be there; and he attributed in a marked degree the inability to get these young men and young women into our institutions to the fact that we

did not give them what they wanted and what they needed. We may say, I think, that so far as the history of education teaches, we do not know enough about the capacities of the different students we have to teach to establish a definite and fixed criterion; and in this tentative state, I believe we must recognize some shift, that we must recognize the interests of the individual. It is a well known fact, for example, in medical science that the physician trusts rather largely to the appetites of the individual, in the absence of any other safeguard; and I doubt that we know enough about the human intellect to say this is what a student should study and that is not. So far as my experience goes, I have simply this to say: as a student in an institution where the elective system is very liberally applied, as one connected with an institution where all the students come from secondary schools (and four fifths from institutions where the elective system is in force), I have no hesitancy in saying that these students have come with as good mental discipline, better habits of study and larger and keener interests than the students from institutions with no election; and in conclusion I may say, that I profoundly believe from my observation of the elective system, particularly in Massachusetts, that our educational institutions with electives are thorough, that they have system, that they pursue a definite, if not a rigid policy. And best of all, they must recognize that they must accommodate themselves to the needs of modern society, if we are to serve the best interests of the young men and young women seeking training in our secondary and higher fitting schools.

Superintendent John Kennedy—A wise election is expedient; but, if it becomes unwise, it gives occasion for control: if it would evade any needed discipline, then it should encounter a requirement that will guaranty education.

The free play of choice under authority may reach all the studies of the curriculum without extending the years of the course and without burdening any one student with more work than he can carry. The studies of the new curriculum may seem dazzlingly and perplexingly numerous; but the kinds of studies

are limited, and this limit of the kinds of studies makes a genuine and symmetric scheme of elective education quite practicable. It is not true that one study is an equivalent for another; it is the equivalent only of another of its own kind.

Here is a working principle for education and educators, a principle that neither abdicates authority or function, nor puts an oppressive restraint on liberty. This principle has been clearly formulated by the Regents of the University of the State of New York, and has been in successful operation for a number of years, as the basis of their diplomas and degrees. It has given to the high schools of the State of New York an elective system that provides for every individual and current need, and yet secures a symmetric and virile education.

I believe that it touches the core of the elective question, and that it has said about the last word on that important matter. I rejoice that the Regents have discovered and made known that authority and election, discipline and progress, are all quite compatible.

And I think that the due adjustment of control and freedom should extend to the end of the college course; for I look on the college as an educational institution, an institution which I hope will never be dislodged from this world. I like a university as broad as its name, a university in which any man may find instruction in any thing; but I like even better a college in which every generous boy is constrained to become a man. The man needs his implements; but the boy needs himself, the fulness of that self inborn. Education should be vertebrate, but it can be mollusoid. Before a man can be master of his environment, he needs to be strong enough to resist his environment.

Liberal studies are the studies that set free; and by setting men free you set peoples free. I believe that the college is the true conservator of modern liberty. But a liberal curriculum is a recipe; it is not the indiscriminate use of a pharmacopoeia. The college must plan the man and regulate his nutriment and his training. This does not mean a strait-jacket, but the reverse; it means the utmost possible liberty consistent with the

discharge of recognized duties. It means that education should be carefully planned by a controlling authority, and rigidly carried out. And, wisely planned, it comprehends the free play of liberty.

Any educational scheme may be open to criticism; for educational schemes are the creations of men, and men are fallible. But even an imperfect scheme is better than no scheme; it is an attempt to conform to recognized law. The law of education is not the creation of men.

In discussing an educational question we should not confound the period of education with the period of specialization. Education proper terminates with the college; and specialization begins with the university and the technical school. The ideals and maxims of specialization are good in their place, but they are the opposites of the ideals and maxims of education; they aim to supply useful things, whereas education aims to supply the human potency that can use useful things to great and beneficent ends. An implement in the hands of a man is a formidable thing; but an implement without the man is a thing utterly inert and useless. And an implement in the hands of a manling is but little better, if not really worse.

I think it a dangerous habit into which we are falling, of designating the stages of education as the elementary school, the secondary school, and the university. The third term of the series is the college; and the college may be in Yale or many another university. But the man who enters Yale or many another university may not enter college at all. I do not object to associating the college with the university, but I do object to confounding them. There is one advantage in having the college distinct from the university, and that is that the college will then not be subordinated to other interests. Therefore I admire the institutions that are willing to be only colleges; for they commit their best efforts to pure educational work. If we can keep such colleges, we shall have college questions determined by college men. If the colleges are not smothered out, there will always be a wholesome rein on election in education.

The amount of variation within a given course will be determined by the college authorities; and the distinction in courses will be rigidly maintained.

Nor do I think that a flexible requirement of scope and sequence in a course of study leading to graduation necessarily implies exclusion. I believe in the wide open door to all our higher institutions of learning. I believe that a world of good may be done by admitting irregularly prepared or absolutely unprepared students to do what they can in a college or university. Such students are the bravest of all and have a brave purpose worthy of every encouragement. They know their condition; they know their powers; and they know exactly what they would and can accomplish. Their presence would be a boon to themselves, to the institution, and to the world. Better far such irregular education than the dead wall of exclusion. Better far such irregular education than much that is regulated. I do not think that we are any more justified in shutting the doors of our colleges and universities than we are in shutting our art galleries and our museums of natural history. To all that are ahungered for such glorious food, let them enter and feed. I think that that was the great thought in the mind of Ezra Cornell when founding his noble university; and it is sufficient to rank him among the greatest of educational reformers. "I would found a university in which any man may find instruction in any subject." But he evidently had no purpose of disturbing existing schemes of college education; for to the day of his death he surrounded graduation with the most rigid requirements.

The prodigious earnestness of irregular work will result in a great fruitage. Such irregular work is the very antipodes of caprice; it is a definite and sustained battle for some specific forms of excellence, a battle that commands victory.

But this does not argue that all should be irregulars. With all his ultimate stalwart fiber, the irregular has many sad limitations. To make all irregulars would be to imperil the fiber without reducing the limitations. The atmosphere which is so stimulating to the irregular is made so by the breadth and finish of the educational work done within the symmetric courses.

Give to each the credit due. Give to the irregular a ringing credit for the exact work done; but give him not the diplomas and degrees that imply extension as well as intension and all around culture. Let him be his sturdy self and tempt him not to appear something else. Let him be a means of bracing up the college or university instead of breaking down its usefulness and credit.

- But I would go even further than throwing wide open the gates to let the people flow into the college and the university. I would make the college and the university flow out to the people. I would throw open the college and university examinations to meritorious students who are not able to avail themselves of the great benefits of residence. This would be real university extension, the encouragement of home study. This would place correspondence education on a proper basis. And I do not see how a state college or university can consistently deny such examinations. It would be better to have all examinations state examinations, in which credit would be given for actual knowledge, regardless of where it is acquired. By the exercise of a large election all classes and conditions of people may be put into close touch with the college and university. And the college and university need to be in close touch with all classes and conditions of people.

But it is not unrestrained election that makes the college worthy of being touched; its potency lies in its closely thought out schemes of personal cultivation. But I would not underestimate the value of college residence. I estimate it so highly that I would give college degrees to those only who are college-bred. The atmosphere of the college can not be breathed elsewhere. The life of the college can not be lived elsewhere.

The college is the best university for the uneducated; not because it presents formal instruction in every department of truth, but because it prepares its subject to look on every department of truth with just appreciation, to be in sympathy with every phase of excellence.

It is proper that every man should be a master in something, that he should be able to do something well. Therefore we have

universities and technical schools. But it is even more important that the man should have high ideals, a wide mental horizon, and universal sympathies. Therefore we have the college. And I can not think that this wise old world that has learned so much in the school of bitter experience, will willingly let the college pass.

I have great admiration for the philanthropy that is pouring its millions with such lavish hand into our universities, technical schools, and libraries. Such good things can not be too abundant. But I think that I would award the palm of a higher wisdom to that great millionaire of Chicago, and that great millionaire of South Africa, who have restricted their benefactions to pure college training. A Pearson no longer stands in magnificent isolation. A Rhodes has decreed that his millions shall be devoted to the exploitation of manhood and to that alone. This *par nobile fratrum* will have successors; and the college may be saved.

I do not think that we should permit ourselves to be frightened by the bugaboo of aristocracy. The absence of mountain peaks would render this world uninhabitable; the absence of men of mountainous character would leave this world not worth inhabiting. We need men who can walk abroad over God's beautiful world and among God's precious people without calculating how many figures it would all place after the dollar sign.

A still, strong man in a blatant land—
One who can do and dare not lie.

The Roman masses were willing to sell their liberty for bread and shows, *panem et circenses*; but a single "thinking" Cassius made Caesar drop the crown. So long as our mountain peaks of manhood are not mountain peaks of privilege they will send down life-giving streams of influence and protection to the vast level plains of humanity.

As we maintain a school of rigid requirement for the training of a reserve of officers for the emergencies of war, so should we maintain colleges of rigid requirement for the training of a reserve of leaders for the more dangerous emergencies of peace.

It is a great service to prepare to administer the industries of the world. But the greatest service which a youth can render to his age is to push his culture up to and above the pure snow-line of unclouded thought, and enter somewhat into sympathy with the magnificent, munificent and merciful designs of the Creator.

But there is no intimation in this that contemplation and action are mutually exclusive terms. The history of modern civilization shows conclusively that the tendency of college training is to forcefulness. The college-trained man who is not a force owes no part of his inertness to the college. He simply remains inert in spite of the college. Some men are born with a tremendous fund of passivity. Unless nature supplies some germ of action the college can not develop it. But there is one comforting trait in even an indigent that is college-bred. He will starve with meekness and will never be found leading bread riots. An educated proletarian is a contradiction in terms. It is never out of the college that the man comes with sword and brand vociferating that the world owes him a living.

Professor Oren Root—I have thought often in the matter of elective studies that it might be well to look at this subject from the other side. It makes a deal of difference sometimes which side of the question we take. I would rather put the question that is on this program—not the elective system and its limits, but the required system and its demands. What is required? How much? I put that question the other day to a Grecian. He is a teacher of Greek in one of our New York colleges and is a Hellenist not only to the finger tips but to the backbone. I asked him the question, How much Greek is necessary for a young man to be a thoroughly and liberally educated man? 20 years ago I felt a Grecian, myself. I believe I have not forgotten the strophes from the *Agamemnon* and the *Electra* which I memorized in my college days, and they did me good. I think possibly the memory of those Greek passages strays into mathematics occasionally. But, when I ask myself the question, how much? I remember that in the last four years, of the valedic-

torians of Hamilton College, two have been from the classical course and have had Greek, and the other two have been from the Latin scientific course and have had no Greek at all; and no one who knows Hamilton College for the last four years would dream that the two men without the Greek were narrower and less liberally educated than the two men with the Greek. It is an argument right from the facts, for I know the men, some of them are teachers in the State of New York. If I were to name them, many of you would recognize that the men without the Greek are just as liberally educated as the men with the Greek.

With regard to the matter of requirements, the matter of demand, I am feeling just in this way: I would take away the distinction that we make in the Hamilton College course between the bachelor of arts and the other retinue of subsidiary bachelors that come running along after it. I do not believe in the distinction that we are making in our Hamilton College curriculum and catalogue. I am not at one mind with our faculty. I am not sure that 15 years ago I believed as I do today, as I did not dream then that Hermann is just about as good a name to conjure by as Hercules. If in Hamilton College and elsewhere we take two men and give one of them Greek and the other no Greek but German and French, and at the end of two years we call these two men and say you can have exactly the same course from this time on, going to the same lecture rooms, making the same recitations, eligible to the same honors, doing the same work, and at the end we call one of them a bachelor of arts because he has had Greek and we call the other one a bachelor of philosophy because he has had only German, I can see no reason in it; it looks to me like a fetish of the past.

As far as mathematics is concerned, after the time when the boys hand in their first elective cards my assistant and I have a joint meeting, a kind of convocation for congratulations and regret. Each congratulates the other because some men have gone out of mathematics, and there is a mutual regret that some pestiferous individuals have stayed in. If you look at it from

the side of the teacher, I am not at all sure that we would not prefer that more than 75% dropped mathematics. As a matter of fact in Hamilton College we are burdened with about one third of the class, though they drop off by the way, sometimes of course and sometimes by force. But the question is, "What is required?"; everything else should be elective. I can remember when the Regents of the University of the State of New York did what I deem their greatest work, when, using the literature fund as a club, they said to the academies of this State, your pupils can not be counted as academic students unless they have first passed the preliminary examinations. I was an academy teacher when students chose natural philosophy, rhetoric and things of that kind and went to the State for the literature fund, though they could not spell anything, could not do anything in the preliminary studies at all. The Regents put a stop to that, and I believe they might require even a little more, because we find in Hamilton College, and I doubt not my colleagues in other colleges find, that there are boys still who spell "scarce" with a *k* and who can not divide by 2 with any degree of certainty.

Reverend Professor John O'Hara—An allusion was made last night to the work that the Regents have done in lifting up the scholarship of the State to the highest possible level, and the assurance was then given that the endeavor would still go on. It is to be hoped also that, when this is done, the effort will not be lost. In the examples that were given today of the elective system, it strikes me that the system that is in vogue either in France or Germany is far from the electivism advocated by educators in this country. In France as in Germany the humanistic and the naturalistic studies as described by the president of Cornell University are amply provided for. In any school that a young man may choose to enter, whether scientific or literary, the studies are with a very slight exception prescribed. While the student may choose his course, he has not the option of choosing just what studies he prefers. With us, where the elective system is in full operation, the broadest choice is afforded.

It has been said that the students do not choose the easier studies, that in fact they choose the harder studies, that they take not the lines of least resistance but the lines of greatest resistance. This has not been my experience with human nature in general, least of all with young men. Intellectual effort calls for energy that is not to be found in the ordinary student.

It is the purpose of the Regents to lift the scholarship of the State to the highest possible level, as shown in the requirements fixed for admission to the high school or academy, for admission to college and to the study of the learned professions. I filed my certificate as a law student over 25 years ago without any certificate of the studies I had made. At that time no educational requirement was demanded of those who sought to enter that profession. Today the applicant must be at least a graduate of a high school. The same demand is also made for entrance on the study of medicine, and it is the hope of this profession that the standard will be raised even higher. If this is the purpose of the Regents, is it consistent for them through the elective system to leave it to the option of the student to lower the standard to the lowest possible limit? Does not consistency require the restriction of electivism?

It must be admitted that in the numerous courses that we find in various colleges, there are some that have the least possible efficiency and others that have the greatest. What is to be gained by leaving it to the student to choose that which gives the least result? It is not fair to the student to tell him when he enters college, that any of the courses he may elect from will produce the same result, when there are courses that are better than others, that have a greater educational value, that leave the student better fitted in mental discipline after his graduation to acquire knowledge of his own initiative with the thoroughness and the exactness that he would have attained under the guidance of a teacher or professor. If there are such courses, then why not induce the youth to embrace the better part, by not giving the same sanction to all the courses that we give to the course yielding the greatest possible benefit? To

give a like sanction for all is to tell him that all are alike in value.

I believe that no course is equivalent to the old-time course, whose excellence we do not need to prove. If the educational value of the various courses is in an experimental stage, as is claimed by some advocates of electivism, the assertion is true only with regard to newer courses in science and modern languages, with regard to courses that have waited for our day to find an advocate. There is no doubt about the classical training. We know what it can do. What the modern processes of intellectual training can accomplish, we have still to see.

Principal Percy L. Wight—There may be some who think, with Professor Harry Thurston Peck, that, as education means ambition, and ambition means discontent, and as the vast majority of minds are limited and feeble, compulsory education means compulsory discontent. There is ground for that point of view sometimes. It may be that pupils who show themselves incapable of following out a course of study may yet do honorable service and not go beyond their sphere. The question of electives does not affect the grammar schools, but I wish there might be a lessening of some of the requirements in these grades. I have looked for some relief to the work of the committee of the State Science Teachers Association which has the matter of physiology in charge. In the matter of high schools there are several elements that enter into consideration with reference to the elective system—the size and location of the school, the number of instructors, the equipment and the spirit and manner of the pupils. Under the very liberal system of electives offered by the University it is possible for a student to elect toward the end of his course certain few easy subjects which will allow him to get the requisite number of counts and finish his course. The tendency is to have the mind too much fixed on the counts and not on the subjects the counts stand for. Principals and boards of education have the responsibility of determining the work which shall be done by students who do not have as an objective point college preparation or preparation for a

technical school. The courses of those who seek this preparation are cut out for them, are prescribed in the entrance requirements of these various institutions. But the other students must have a course mapped out. It should be broad, it should be balanced and it should be varied in order to test the ability and bent of the pupil. Afterward it should be narrowed down to three principal lines of work, in which I would require mathematics and language. A true system of high school education can not slight the culture elements in favor of the purely utilitarian. I deplore the temptation which is offered to high school pupils in the matter of electing for counts. Principals should assume a responsibility and check the tendency of pupils to get by examination counts not earned by previous systematic classroom work but appropriated after a few weeks cram before examination on subjects outside the regular course. I would also favor the elimination of electives to some extent, in some lines, in the questions that are offered on examination papers. Oftentimes it is possible for a pupil by judicious choice of questions to answer enough questions to pass an examination that is set to cover the whole subject, when he is not fully prepared in that subject. Also we should make our pupils realize the position which their school occupies in the great State systems. I believe that most of the children, when going up for their first Regents examination, have a feeling of awe at the name "Regents." To them it is nothing but a name or a brand. Their feeling may be similar to that created by the stories of the adventures of Alice in Wonderland; and I will illustrate by this incident how that notion is carried through to maturity. Week before last there appeared in a student publication published at my college an editorial. It was a tribute to our late Chancellor; and in it I read with astonishment and mortification the statement that Dr Upson became Chancellor of the "University of the Regents." We must teach accuracy above all things. We must develop the power of application and classification and adaptation, and, as the student approaches the vanishing point, let us hope that he will know appreciation.

Inspector Albert C. Hill—Should pupils in the high school be permitted to determine for themselves the studies they are to pursue and the order in which the various subjects are to be taken up? An affirmative answer to this question involves the assumption that all subjects have equal educational value or that the guess of a child is worth as much as the judgment of an expert.

It is doubtful whether the best teachers really believe in the theory of "electives." Conditions may often make it seem necessary to permit this unlimited freedom in the choice of studies, but something approaching "educational anarchy," as has been suggested, is the result.

The vast and ever increasing educational material makes the choice of subjects important and difficult, but the expert educator, and not the child, should decide the matter.

The varying conditions and prospects of pupils should be regarded in determining what studies they should pursue; but it does not follow that immature children should diagnose their own cases and choose the remedies they most fancy. If it did, the educational profession would present a comical aspect.

Instead of "electives," which seems to be used in a rather loose sense, the term "adaptives" would seem more appropriate. The expert teacher studies the child, consults his parents, finds out all he can about the personality of the boy or girl, and the niche in life that he is likely to fill, and then prescribes the studies that experience has proved to be best for the purpose.

It is quite likely that the best students in high school and perhaps in college would be better suited with prescribed studies. The lazy and indifferent may prefer to seek the line of least resistance; the ambitious want the best education and are glad to have some one who is authority on the subject tell them what course to pursue.

Professor Morris Loeb—There are just two points that I would like to call attention to, that have struck me in the discussion that we have heard. In the first place a great point is lost sight of in the difference between the German and the American sys-

tem of electives, with which I happen to be familiar, having been through Harvard and then through a German university. The examination system in this country is one of individual studies, and the European system is one for the whole course. The German student fixes his curriculum with the knowledge that the general examination is at the end of the whole course. The danger which I have observed, both as instructor and as student, has been that the student does elect quite largely with reference to the examination at the end of the course. I think that is where the danger of the elective system comes in, that the student thinks his course is closed with the examination, that he is through with it, and on that account he makes his election from year to year, largely with reference to his disposition, partly with reference to the subject he is to take later on, partly as to conflict of the hours with his other courses, and so on, and partly with the danger of "flunking" at the end of that particular session. These are the points that have to be eliminated before the elective system in this country can be thoroughly successful. If we adopt an elective system out and out, there must be an arrangement by which the student will feel that at the end there is a test for all of his work; otherwise I personally would very much prefer the group system.

The other point that I would like to bring out is this—that in the discussion of an elective system or of a prescribed system, one thing is left out of account as a rule. I think it was very much left out of President Schurman's statistics; and that is that what a student takes one year definitely binds him to take something else the next year. I am not surprised to find little mathematics in the junior year, when 96% of the students dropped their mathematics after the end of the freshman year, whereas we find the languages occupying 45% of the curriculum in the beginning and 25% at the end. The reason is this, that a student who wants science and has no mathematics is out of the running. A student may drop his Latin, he may drop his Greek one year. He may take up some study in German or in French or he may take four or five different kinds of English courses in

the same year, and the statistics will always make an apparent continuation in the humanities, whereas, as a fact, the scientific studies, physics, chemistry, etc., are determined from the very outset; he has to go on in a grade course.

And, finally, our statistics are very much vitiated in this respect, that even such colleges as Harvard do something toward limiting the election. There are certain groups in which it is impossible to take two subjects in that the examinations occur on the same day; and those examinations are set ahead so that students are not allowed to take those subjects that would conflict on examination day. Certainly every college that works on the elective system so arranges it that certain subjects come on the same day and can not be taken in the same year. In our college, we allow students to come in with a very elementary knowledge of French and of German, and, inasmuch as the same teacher does not teach both subjects, it was quite natural that students would appear in both classrooms, taking elementary German and elementary French. We got away from that by making it impossible to do so unless a student have his shadow on one side of the wall and his person on the other. I believe that the elective system is limited in that way much more than is ordinarily apparent; and on that account we ought to be very careful, in our discussion of the value of the system, to eliminate these sources of error in the consideration of the statistics.

Dr Joseph E. King—I rise to express a word of gratification and congratulation. I have seen this convocation develop from its infancy, and I am delighted to acknowledge the fact and grateful that the Regents have had such a splendid and continuous experience for 40 years. What a fine program we had last night! what a fine program we have this morning! Intellectual feasts the Regents give us in these convocations. As to the question now before us, full of interest, I have only one jealousy about these experiences in the realm of developing privileges in education. My only jealousy is that the B.A. shall retain its historic value, that it shall not be cheapened; beyond that I am content with all this increase of privileges to the coming youth.

In those institutions on whose cornerstone is written practically, in the words of that grand man who endowed Cornell, "Everything that a man wants let him study here," I would interpose no barrier to that expansion. But in institutions leading up to the baccalaureate I would not abdicate the parental function in prescribing the course of study. I suppose God did not make any mistake in making it necessary that a child should be 15 or 16 or 18 or 20 years in growing before he is good for anything; he did not leave it to the discretion of mercenary parents. And the educational institutions that form the University of the State of New York should not, I think, abjure the parental function by permitting children to choose their courses in the kindergarten. Give them that which is best and require it of them. Hold to the old B.A. and its splendor and then branch out as much as you please. "Vandal, spare that tree."

Principal D. C. Farr—I think we all agree that the Regents of the University of the State of New York have done a good work in largely solving this question of election of studies. They adopted some years ago the group system by which all subjects in our secondary schools were arranged in five divisions, and each subject was assigned a definite numerical credit, and to complete a course in any secondary school of the State the student was required to earn a definite number of counts in each of the groups, though he had the liberty of choosing from the subjects within these groups. This system has worked well, and there is but one possible criticism to be passed on it, which is that there are some subjects on which it is much easier to prepare for the examinations than in others. This objection can and ought to be remedied, and we should then have a nearly ideal system.

Why could not this same system be adopted by our colleges, thus making each course represent the same amount of work and consequently the same amount of culture? If this should be done, then the same degree might be granted with equal justice to all graduates, thus avoiding the confusion which now

arises from the great number of degrees, so hard to be understood by many.

Superintendent **Henry P. Emerson**, president of the State Teachers Association, announced the meetings of the association at Saratoga immediately following convocation and expressed the hope that the members of convocation would attend in large numbers and aid in making the meetings a success.

NEOROLOGY

REPORT OF COMMITTEE, C. W. BARDEEN

June 15, **Chancellor Anson Judd Upson**, remembered not only as an eminent scholar, teacher, orator and executive, but as one who personally endeared himself to all with whom he came in contact.

Nov. 23, **Regent Orris H. Warren**, whose gentle and unassuming manner gave the stranger little token of his bold and ready power in controversy.

Aug. 3, **Bishop Abram N. Littlejohn**, who was elected president of Hobart in 1858, but declined, and had control from their establishment of St Paul's, St Mary's and St Catherine's schools.

Aug. 5, **Brother Ambrose** of the St Francis brotherhood.

Mar. 11, **Brother Charles**, president of Manhattan College.

May 4, **William B. Terrett**, dean of Hamilton College.

June 17, **Eugene Augustus Hoffman**, dean of the General Theological Seminary.

COLLEGE PROFESSORS

July 7, **Theodore Greely White**, assistant in physics in Columbia University.

July 13, **Rev. E. A. Huntington**, professor emeritus in Auburn Seminary.

Aug. 26, **Thomas Masters Markoe**, professor emeritus in the College of Physicians and Surgeons.

Sep. 30, **Henry Whitehouse**, professor of Greek, Union.

Oct. 18, **William A. Dunn**, professor of English in Adelphi.

Nov. 11, **Richard Mayo-Smith**, professor of history and political science in Columbia.

Nov. —, **Unni Lund**, professor of vocal music in Syracuse University.

June —, in the Philippines, **Loren C. Guernsey**, formerly instructor in Union University.

SUPERINTENDENTS

Aug. 3, **Nathaniel L. Benham**, Niagara Falls.

Sep. 13, **Edward G. Ward**, Brooklyn.

Dec. 7, **Edwin F. Fagan**, assistant superintendent in Queens.

Feb. 17, **Albertus Gates**, supervisory principal of the borough of Richmond.

Mar. 26, **Anna M. Gordon**, primary superintendent of Richmond.

PRINCIPALS

Nov. 18, **William N. Hill**, of Uniondale.

Jan. 28, **Calvin Patterson**, of the Brooklyn Girls High School.

Feb. 8, **Sydney B. Covey**, of no. 19, Utica.

FORMER PRINCIPALS

Nov. 20, **William Riley Benham**, of the Genesee Wesleyan Seminary.

Feb. 4, **Theodore D. Camp**, of Onondaga Academy 1859-63, who began teaching in 1835, and was afterward in Syracuse and New York.

Ap. 12, **Levi S. Dominy**, once principal of Beekmantown Academy, for 15 years a member of the Massena board of education.

Ap. 27, **Oliver Rivington Willis**, of the Alexander Institute.

May 20, **William C. Brown**, West Winfield and Camden.

ASSISTANTS

Ap. 26, **F. H. Howard**, teacher of Greek in Colgate Academy.

After the reading of the annual educational necrologic report, Regent Sexton said:

There was one name read from Mr Bardeeh's necrologic report which the Regents would not wish to have pass with mere mention. Suitable tributes have been paid to our beloved Chancellor; and we would wish to speak also on this occasion of our affectionate esteem for our other deceased brother, Dr Orris H. Warren. Though of distinguished lineage, a descendant of Gen-

eral Joseph Warren who gave up his life for his country at the battle of Bunker Hill, Regent Warren was a man of exceeding modesty, but also of corresponding great merit. Faithful all his life to the inspiring traditions of his great family, Dr Warren's days were given up to great and good works of public usefulness. For a quarter of a century he was a member of the board of Regents, a service which brings out all that is best in any man. It awakens all of the spirit of devotion, and that conspicuously characterized the membership of our brother, Dr Warren. With your permission I will read to you an extract from the Regents minutes made at their first meeting following his death, which might not otherwise come to your attention; and I am sure that the words there recorded will be in accord with your thoughts and feelings so far as you knew the man.

The board of Regents places on its records this minute of appreciation of the services of the late Regent, Orris Hubert Warren D.D., during his 24 years membership, and its tribute to his high personal character and eminent public service. Dr Warren rounded out a career of large usefulness in the ministry, in the journalistic profession, and in educational affairs. He was preeminently an earnest, conscientious and public-spirited citizen, and by his voice and pen measurably promoted practical reforms in various public relations and in behalf of both the higher and popular education. He was attentive to the duties of this board, took an active part in the discussion and action on all questions, and his views and votes were uniformly in harmony with the requirements of the concerns under consideration. He was an able and powerful writer in the press on religious subjects and thereby exercised a wholesome influence on his church and the general public. His personal qualities were admirable and drew to him warm friends and associates. Our relations with Dr Warren always were most cordial and sympathetic, and bound us to him with strong ties of respect and esteem. His death is sincerely mourned by us, as the irreparable loss of a beloved friend, sagacious associate and wise counselor. The high standard he set for his practical life work is commended as worthy of approval and emulation.

Tuesday afternoon, July 1

Regent Daniel Beach—After such an interesting session as we had this morning I trust that the interest will continue during the afternoon, and I have no doubt that it will. The first sub-

ject that we have on the program for discussion this afternoon is examinations. Logically that subject should have preceded some of the subjects that have been discussed, but we can very well imagine that it is the beginning and place the others in the logical order. The subject of examinations is not a new one, but it is one that interests all school men. We will now listen to a paper on this subject by Regent Charles E. Fitch.

REGENTS EXAMINATIONS

BY REGENT CHARLES E. FITCH

The subject of this paper is Regents examinations. It is not a paper written by an expert educator. The Regents supervise expert educators but are not such themselves. Of course in this paper I can present nothing new on this subject, which has been pretty thoroughly threshed out. It is only my way of putting it.

Several months ago, the Rochester board of education, on what I must regard as insufficient information, abolished Regents examinations in that city; or, tantamount thereto, declared that they would no longer be required either for admission to, or graduation from, the high school. They were made optional, the euphemistic expression for discrediting and ultimately for banning them. I deplore this action sincerely, specially as proceeding from a body whose personnel I esteem highly and whose organization, a marked improvement on that obtaining previously, I approve cordially. It seems to me a singularly ill advised, indefensible and untimely departure from a well established system, constantly and conspicuously augmenting its usefulness and as constantly vindicating the wisdom of its ordination by results attained—a desertion from conquering educational forces at the very moment of their supreme triumph. It is chiefly on the impulse of my regret at this defection in my own bailiwick that I present before this convocation certain conclusions in behalf of the Regents' mode and shall try to meet partially, at least, the objections urged against it.

Preliminary to all else I maintain, and I appeal to all educators familiar with the various phases of the assault to justify

my statement that each and every criticism preferred against Regents examinations are not criticisms of such *per se*, but of all examinations, of the principle rather than of its distinct adaptation. The changes that are rung on the undue pressure, unhealthy competition, nervous strain and immoderate cramming imposed on pupils by the Regents papers and their ill framed, unfair and tortuous questions, sometimes anathematized as inquisitorial, are the same changes that have been rung on examinations since examinations began. They are only old foes with new faces. Within the compass of their operation, there is today a larger volume of denunciation of the school examinations of the metropolis, on their independent lines, than of those in the State, outside of it, controlled by the Regents. Cartoons in its press depict their terrors and tortures. We have seen such in the journal over the columns of which a man of extraordinary versatility and brilliancy, the most fecund phrase-maker in the land, who usually dedicates his powers to noble ends, and who happens to be a Regent of the University, presides.

The censors of examinations are mainly of two classes, the one a coterie of teachers, diminishing in number, but insistent in utterance, who would eliminate them entirely from courses of instruction, elaborating curriculums from which they are excluded, but nebulous in proposals of anything superior or even equivalent to them; the other a few provincial editors, with the talent for superficiality which inheres in their profession, dogmatic and indiscriminate in their attacks, resolving individual cases of hardship into a dominant abuse, formulating sweeping propositions from meager particulars, as false in fact as vicious in logic. These, with zeal without knowledge, prefer to indulge in sensations rather than to apply themselves to candid investigation. They make bricks without straw and, as such artificers, need not be considered seriously. The former possess integrity of thought, if infirmity of judgment, and thus betray a disposition common to all educational perversities; for there is no conceit so fantastic

as to lack sincere exponents, no fetish so monstrous as to be devoid of devotees. It is to be observed also that these censors consist principally of those who would have the acquirement of knowledge wholly a recreation, convert the school-room into a playground, conform the university to kindergarten methods, spread "flowery beds of ease" for the repose of ingenuous minds and construct "royal roads to learning". In the words of John Stuart Mill, they "would train up a race of men who will be incapable of doing anything which is disagreeable to them." In the realm of pleasure, which a glowing fancy projects, there is no place for the ordeals of study; but, in the substantial domain of education, they do have a place and that one of historic significance and abiding honor.

This is the day of iconoclasm, as well as of creation, of newly broached theories disdainful of ancient aphorisms. We do not sit long at the feet of the masters. Our empiricism flouts their experience. And yet, the past constrains the present to this extent: we may not tear down unless we can upbuild. We, who do not believe that all wisdom came into the world with our generation and will die with it, do not exalt examinations simply because they are old, but because their utility has been proved, and we submit that the sanction of the ages entitles them to some measure of respect, that they should be maintained till they are shown to be outworn and inefficient, till something better than they can be substituted for them; and nothing has been discovered that accomplishes their ends, either as tests of knowledge, passports of promotion through successive grades, or certificates for the practice of the professions. In one form or another they have been in vogue for many centuries. They were in the China of Confucius and Mencius and still abide in the venerable institutions of that empire, in the Athens of Aristotle and Pericles, in the Rome of Augustus, for patrician youths, in medieval cloisters and universities, in the arts of Paris and the legalities of Bologna, in trivium and quadrivium, in the tournaments of the knights errant of letters on the continent of Europe, in the arts and

opponencies of the Cam and the wrangles of the Isis, in American colleges, from the first, with marks variously proportioned to those of recitations, and latterly for appointments to and advancements in the civil service of Anglo-Saxon governments.

To processes thus fortified historically and accreting strength both in expert exposition and popular appreciation, the objections must be of the weightiest and most searching import to prompt, or even to suggest, their relinquishment. What are the objections? It may be stated broadly that they are either negative, as bearing on the crucial issue, or limited in their application, relating to administrative imperfections, rather than to fundamental defects. There is the specter of examinations that evokes for its victims that blended sentiment "of contempt and pity with which Aristophanes contemplates the pale students of the *Phrontisterion*" and to the laying of which succeeds the roseate glamour that fills with ecstasy the dream of the ideal education, in which appears the central, radiant figure of the ideal educator. In his presence, we all uncover. Let it be granted, that such an educator, the born teacher, divinely endowed, may do much in inspiring enthusiasms, in unfolding the meaning of his work, in impressing those within his tutelage with a sense of their responsibility, in communicating his thought as by an electric spark, in lifting them up and keeping them loyal to their better selves, and even in so quickening and informing them that, in exceptional cases, examinations may be dispensed with, as being provided for by devices of his perfecting, which possibly he may not be able to enucleate to others, it is still true that the exclusion indicated can not be predicated on his persuasion. He is a genius and genius is a law unto itself. I am told by a prominent educator that, when he was principal of a school in western New York, there came to his village one of these born teachers, a woman from a neighboring city, who had wrought marvels in her field of activity by the singleness of her consecration, the graciousness of her mien and the magnetic quality of her instruction. Justly conscious of her own resources, she delivered an address against

examinations, so sympathetic, so forcible, so adroit, so clever as to disturb the faith of the local board of education in these agencies. "What does it all mean?" they asked of the principal. "It means," he answered, "that there would be much in what she says, if all teachers were of her stamp." This is good so far as it goes, but it isn't all. They who are taught, as well as they who teach are factors in the problem. I suppose that examinations are not essential to that famous university which, in affectionate tribute to his great mentor, President Garfield conceived, but in this it must be seen that, if Mark Hopkins is at one end of the log, James A. Garfield is at the other. All scholars are not Xenophons even if Socrates is their master. The benches are usually as vacant of the ideal as is the chair of the preceptor. Hence, under existing conditions, is the propriety of stimulating the work of the one and supplementing that of the other, and these examinations do and much more. They are not, indeed, the be-all and end-all of education. They must be intelligently and providently correlated with systematic teaching. Thus correlated, they encourage emulation, clarify the memory, make knowledge manifest and test it, and foster a sense of responsibility in youth against indolence, and diversion and dissipation of its time and energies.

It is sometimes said that examinations furbish the memory at the expense of other faculties of the mind—abnormally develop it. Even if they do this, is the sin without palliation? May it not, indeed, have a virtuous essence? What faculty should have more assiduous cultivation than memory? In Hellenic myth, Mnemosyne, through union with Zeus, becomes the mother of the Muses. "Memory," says Dr Johnson, "is the purveyor of reason." Shakspeare calls it the "warder of the brain." Wordsworth apostrophizes it.

Hail, memory, hail! in thy exhaustless mine,
From age to age, unnumbered treasures shine!
Thought and her shadowy brood thy call obey,
And place and time are subject to thy sway.

Memory is order; memory is dominion; memory may be genius. Without it, confusion, imbecility, the death in birth of every

offspring of the soul. It is the chief servitor of scholarship. It is almost the synonym for scholarship itself. But the influence of examinations, properly prepared and conducted, is not to dwarf or distort the other faculties, while nurturing memory. Not only do they strengthen the memory, but by them the will, the judgment and originality of thought and expression are drilled and disciplined. They favor the symmetric growth of the intellect. Rightly administered, they foster the assimilative, rather than the portative, memory, as Latham clearly shows; and, after all, it is their function to try, rather than to train, the memory.

Examinations are decried because, it is said, they necessitate "cramming." Here is a double-barreled gun charged to each muzzle. Cramming, it is averred, causes hasty, careless and fortuitous preparation; and it ruins the health of those who meddle with it. Here is obvious inconsistency. The youth who, with catchpenny bent and idle hours behind him, crams merely to pass, is not one and the same with the conscientious student who burns the midnight oil. No pity should be wasted on him. "Cramming" is a term of double and of doubtful application. It is used legitimately in the sense just referred to, Webster defining it as "the making crude preparation for an examination by a hasty and extensive course of reading or study." The professional "crammer" or manager of such a performance, can not be excoriated too severely. His object is not to teach, but to enable his pupils to "get up" simply that which is "likely to be asked", to fit them to simulate knowledge and conceal ignorance. "Such a man," says Canon Barry, "deserves every opprobrium that can be heaped on him and no name is more appropriate than the term 'cram'—unclassical but significant—to describe the 'vacant husks' hardly 'meant for grain' with which he cheats the appetite for true knowledge." But the censors, as meanly as illegitimately, with the intent to degrade them, label the well ordered reviews and their adjuncts with the derogatory designation. They smite with an epithet. Is the time given to reviews spent unprofitably? Is it a "cramming" process? The

best educators hold to the contrary, and many claim that the discipline thus secured is one of the most satisfactory results of a school course. Most relevant is the query as to whether or not Regents examinations promote "cramming," when, coincidentally with and consequent on their adoption, the periods allotted to the various subjects in the high school curriculum have been extended materially, in several branches, from 12 to 20 weeks, in some, from a half to a whole year, and the full course from three to four years. Is this provocative of "cramming?"

What of the remaining barrel of the gun? It is packed with invectives, noisy in their explosion, against the nervous strain which examinations impose and the calamities that thence ensue. N urosis, tuberculosis, paresis are but a few of the maladies for which they are held accountable. The clutch of the skeleton is at the throats of our students. Let us see how this really is. I have always been quite sceptical as to the alleged intimate relations between mental ailment and bodily distress. Cause and sequence rarely so cohere. There are cases, of course, in which they do, but they are striking exceptions. The reverse is the rule. Heartaches do not often become heart-breaks. Physical exhaustion succeeds physical toil. The mind is regnant over the travails of the flesh. The hardest intellectual workers hold warrants of longevity. Overstudy carves few epitaphs in the cemeteries. Noxious air and indigestible food are the ushers of the sick chamber. The "dry drudgery of the desk's dead wood" doesn't kill. And yet, the censors, selecting a single weak or wearied school boy, and bidding us view him through a multiplying lens, cry out, "Lo! these are the innocents sacrificed to the Moloch of examinations." Right here, may there not be countercharges as well as charges? I distinctly charge that they who prate about the ill health of the schools grossly exaggerate the number of those affected and make ignorant or wilful assumption of its origin. Their diagnosis is false, and, like Dr Sangrado, they have but one remedy to propose—the total abolition of examinations. "Some, no doubt," says Latham, "exhaust themselves by overstriving, and they tax

circumstances, or the high pressure of the times, with the mischief consequent upon what they call overwork, but which more frequently is overworry, and is more due to their own habits of mind than to anything external." I have talked with many leading physicians and they say that cases arising from nervous strain in the schools are infrequent in their practice, and certainly they can be avoided. The small proportion, as compared with the great body, that examinations may imperil, can be restrained from engaging in them, but it were sheer folly to sweep them away at its behest. Not in cruelty, but in equity, we say, there must be the survival of the fittest.

The last grievance cited is that in examinations, so far as they are competitive, youths are excited by a spirit of emulation, the desire to outvie one another rather than to improve their opportunities, and that thus there is an elimination of the moral quality. They don't love learning for learning's sake. Of course, none do at the beginning and the large majority never do. All must have the spur of ambition, the joy of conflict, the hope of reward, the dread of failure, to liven their sense of duty, to urge them to endeavor, to define the responsibility of study. "Knowledge comes, but wisdom lingers," and every incitement, every inducement, that will lead to the acquisition of the one through the quickening of the other should be utilized. Examinations do this through the processes suggested. They harden the bone and toughen the sinews of those who enter them. It is something to run in the Olympian game, though the dust from the victor's heels may choke us as it flies. Examinations are concordant with the universal law of life that struggle precedes success, is necessary to it. Competition rules the court, the cabinet, the camp, the mart. The captains of industry, the masters in the professions, the watchers of the stars obey the law. Humanity is governed and progresses by it. Socialism, indeed, rebels against it, as in the rhapsody of Bellamy, but Walter Besant, in one of the most philosophic stories of the day, probes the delusion and, with keenest satire, shows how inane and empty life would be if in it there were no aspirations, no crossing

of swords, no gaining of prizes, even if its span were that of eternity. It were death in life. Life is exertion throughout, and examinations do for the young what its sterner conflicts do for those of maturer years.

And now, if, in the brief space at our command, we have at all answered the objectors, it is pertinent to inquire as to the form that examinations should assume, how they should be formulated and regulated; and, in doing so, we claim no patent of originality. We must defer to the canons of experts and the monitions of experience. They should be uniform within a given jurisdiction, and the wider the jurisdiction the better. This ordains exact and well devised standards, harmonizes curriculums, provides enlightened directors and inspires the emulation of associated bodies, as well as of individuals. Concrete examples rather than dictums here appeal to us. In this regard, the important educational benefits conferred on England by the University of London and the good accomplished by university extension are cases in point, but there is an illustration nearer home in the method prescribed by the New York Department of Public Instruction for the qualification of teachers. This signal reform, inaugurated by Superintendent Draper—the crowning glory of his memorable administration—and continued and enlarged by the present able and devoted head of that department, has rendered splendid service to our common school system. The change wrought is radical, even revolutionary. It has brought order out of confusion, precision out of perplexity. While it has increased the dignity and cogency of the central authority, it has enhanced the self-respect of those subordinate to it. It has exalted the teaching profession and fostered an *esprit de corps* among its members. It has made a certificate, with the requirements for obtaining and the recognition accorded it, an honorable testamur and not a mere business article. It is for the betterment of teachers and, therefore, for the betterment of schools, and this chiefly, if not wholly, because the conditions it enforces are uniformly operative in the State.

Examination papers, except possibly for the lower grades, should be prepared by thoroughly equipped scholars outside of the teaching force. It is, as thus prepared, that they exercise a valuable directive influence, guiding both teachers and learners and guarding against the omission and careless handling of some subjects and undue attention to others, against the ill proportioned training which stimulates this faculty of the mind and stunts that. It was this consideration on which principal stress was laid in urging the English universities to undertake the examination of others than their own matriculates and of such schools as were willing to submit to their supervision. The same authority that issues should revise the papers, though there may be intermediate markings. Its review guaranties the integrity of such markings, its impartiality being assured, and its diploma will be held in higher esteem both by its recipient and the public than it could be if sealed by a lesser and local body.

Examinations should be constructive, not destructive, as my friend Superintendent Kennedy puts it pithily, and as Regents questions have been so framed, for many years, not without the counsel of that eminent educator. They should be designed so as to draw out what students know, not to puzzle them with what they do not know. Destructive questions are intended to tax the memory without reference to thought, and often simply to exhibit the dexterity, or to vent pet notions, of examiners, without regard to what may be expected from pupils and what is likely to reveal their capacity. They are strait-jackets of dates and details, of the facts which Mr Thomas Gradgrind, with urctuous emphasis, demands. Constructive questions address themselves to the higher intelligence, not only to the pupil's information, but to his ability to express his thought, to apply his knowledge and to reason. According to them, for instance, the causes that brought Charles Stuart's head to the block are of far more significance than the hour of his execution, and the commercial supremacy of New York than its latitude and longitude.

It is on the lines thus hastily sketched that Regents examinations have been exploited, conducted, reformed, perfected. I am

not here to affirm that the control of some of these examinations by the Regents may not, with propriety, be challenged. I am inclined to think that such control does not belong to them, though it may not be denounced as a usurpation. I state frankly that in this view I am not in accord with the majority of my associates. I speak only for myself. Till the unification of the educational systems of the State occurs—that unification concerning which so many of us wax eloquent, in which we all believe and hope to see achieved, each, however, in his own way, his way being nobody else's way—I would relegate the entire supervision of secondary education by the State to the Department of Public Instruction, in which it vests naturally and logically, but I also know that, if it were thus relegated, there would not be the slightest change in the manner, and probably none in the personnel, of the administration of the examinations. The rose by another name would smell as sweet. It is easily seen, in the review, how the Regents acquired the control they exercise, as it is not difficult also to understand how, having possession, they are not swift to surrender it. They are justly proud of the record they have made and the measures they have matured. The origin of these examinations dates from 1828. The Regents, in order to improve the course of instruction in the academies, then as now within their jurisdiction, by specifying the various branches of study which should entitle the institutions in which they were pursued, to a distributive share of the income of the literature fund, resolved that no scholar should be considered of academic rank till he should on examination be found proficient in reading, writing, arithmetic, grammar and geography. Till 1864, this examination was entirely within the purview of the authorities of the school. In that year it was ordered that a public examination should be held at the close of each year, to be conducted by a committee appointed by the trustees of each academy respectively, and that certificates be issued to successful candidates. A year later the questions were prepared in the Regents office, the examination, however, remaining in the hands of the school; and in 1870 the

present plan of remitting papers to the Regents, after they have been passed on locally, was adopted. Under this rule, it has occurred that a large proportion of the papers approved locally have been allowed by the Regents. In 1900, 91% of the examination papers of all kinds was thus allowed. The Regents review is not such a dread tribunal after all. The preliminary examinations suggested those in advanced branches, and in 1878, in pursuance of a resolution of the convocation of the previous year, the first academic examinations were held in 81 institutions in the following subjects: algebra, American history, elementary Latin, natural philosophy, and physical geography, and by the convocation of 1879, on motion of Professor North, of Hamilton College, it was recommended that academic certificates should be accepted by the colleges, in lieu of their own examinations, to which not only the colleges of this State, but many of those of the New England states acceded cheerfully. As the academies, rich in historic associations and in the records of their sons, were resolved into high schools and new high schools were established throughout the State, the examinations remained in the custody of the Regents, not logically, I admit, but, under the circumstances, by processes of absorption, inevitably. It is not, indeed, the supervising agency so much as the thing supervised with which we are concerned; and it must be conceded that the Regents have executed the trust reposed in them wisely and well, and that in all sections their work has been undertaken, not at their own volition with the purpose, as is sometimes alleged, of expanding their powers, as a monarch may seize territory, in mere greed of conquest, but invariably in response to the petitions of principals of schools and leaders of the professions; and this is true also of modifications in examinations and the remuneration to schools therefor, e. g. the March substitution for a recent knotty January ordeal in higher English and the abolition of the payment for diplomas.

Regent Vander Veer will shortly speak on medical examinations. In the few further words that I shall utter I shall con-

fine myself to the academic and preliminary, glancing at one or two specific points not already covered by the general observations in which I have indulged. The preparation of the papers is placed in the hands of the inspectors, who are all college graduates, of experience in teaching and who spend a large part of each year in visiting the schools. They thus come in contact with pupils and teachers and from both receive impressions which aid them in preparing the questions subsequently proposed. Moreover, principals and faculties are enjoined to send their judgments of the quality of the questions to the Regents office, and these, being tabulated, act as guides in the making of succeeding ones. These are the three inquiries usually addressed to teachers: (1) Are these questions too hard? (2) Are they too easy? (3) Are they just right? And for a considerable number of years more than 90% of the answers have been affirmative to the third interrogatory. It is said that principals answer thus favorably because they are in dread of the board and wish to curry favor with it. This is a slander on high-minded gentlemen who are in no wise dependent on the good or ill will of the board, who stand on their merits in their communities.

The alternative feature of the examinations by which the student has the chance to show what he knows—the option of choosing a certain number of questions out of the whole to answer—is of the utmost practical benefit. “If”, says the High School report of 1898, “a question paper has been properly prepared and a class has been properly instructed, each candidate should find on the paper at least four questions that relate to matters which have not been taken up in detail in his study of the subject. If this is not the case, it is evidence either that the questions have not been properly distributed over the whole field, or that the instruction and study have been distributed over too much of the field. If teachers and students will take this attitude toward the examination system, all of its limiting and hampering effects will disappear, and it will, as it is intended to, be stimulating in the best sense.”

It is on these principles and by these methods that Regents examinations have developed into mighty proportions and commended themselves to general approbation. Over 1,300,000 question papers are distributed annually. The Regents office, with its corps of clerks and examiners, is one of the busiest places on the continent; 690 academies and high schools reported to it in 1900. Early in 1896, Mr Charles F. Wheelock, head inspector, addressed a circular to principals of schools, which had come recently under the visitation of the Regents, asking each to state the advantages, if any, which had accrued to his school by reason of its admission to the University. Nearly 100 answers were received, over 90% of which were of uniform approbatory tenor. I have read many of these with exceeding interest. I quote from one, selecting it for its condensed form. The principal (George Turner Miller, Van Etten) says:

- 1 The pupils have been more regular in their attendance.
- 2 The older pupils remain in school longer and do much better work.
- 3 The interest of the pupils in their work is greater.
- 4 The Regents serve as a guide to the more ambitious teachers and as a spur to the delinquent ones.
- 5 Boards of education are more willing to purchase the necessary apparatus for all departments of the school and the people cheerfully vote them sufficient funds.
- 6 The people more willingly purchase needed textbooks for their children.

The teachers of the State are ardent champions of Regents examinations, and leading educators outside are hearty in its praise. The experience of Cornell University is specially pertinent, its distinguished president reporting that of the failures after entrance, for the six years preceding 1896, the percentage was least among those who held Regents diplomas and greatest among those examined by the university, it being six for the first and 18 for the second class, and he further says: "Fortunately, the Regents control a comprehensive and effective mechanism for the conduct of examinations in New York, and they are so responsive to suggestions made by the faculties and officers of colleges and universities, as well as by principals of

academies and high schools, that there is no reason why they should not continue to mediate between them," President Eliot, of Harvard, says: "The Regents have proved that a state examining board can exercise a stimulating, elevating and unifying influence and can wield that power through machinery which, considering the scale of operations, may justly be called simple and inexpensive." To the same purport is the testimony of Professor Brown of the University of California, Sidney Sherwood of Johns Hopkins, President Milne of the New York State Normal College, and others of like character. The Association of Colleges and Preparatory Schools of the Middle States and Maryland, largely at the instance of him who so inspired and charmed us last evening, has substantially adopted our examinations. A representative teacher of New Jersey is here today, to tell us that his state is moving in like direction, and still other states and educational bodies are contemplating the same action. With that illustrious scholar of the Reformation, Philipp Melanchthon, we may say: "No academical exercise can be more useful than that of examination. It whets the desire of learning, it enhances the solitude of study, while it animates the attention to whatever is taught . . . it may be called the life of studies, without which reading, and even meditation, is dead." As a citizen of Rochester, I move that Regents examinations be restored to the place and clothed with the authority that they had there formerly.

Principal Charles J. Majory—It is fortunate for me that I have not been invited to discuss the educational principle underlying the exhaustive and scholarly paper that has been presented on the general subject of examinations. As the result of an experience covering a considerable number of years, I am decidedly in favor of stated formal examinations such as are maintained by the Regents of the University of the State of New York. But I am not here to discuss specially the reasons why I am thus in favor but rather to present to you a bit of news from your neighboring state. It is probably a well known fact to you that we have

in our state nothing that corresponds to your organization of the University of the State of New York. Our state educational department consists of the state superintendent as the administrative officer and the State Board of Education. That board of education, made up at present of 20 men appointed by the governor, two from each congressional district, and no two from any district of the same political faith, becomes a supervising body and an administrative body with the same power as rests in the Regents of the University of this State, with the difference that to that body is assigned the work of the elementary schools as well as of the high schools. It may be that we are fortunate, not as compared with your State in the present but as compared with your State in some periods of the past, in having a unified administrative body. It is my feeling that we in New Jersey are, in some respects at least, on a plane with you in New York State perhaps in some particular points, specially in the matter of elementary school organization. I feel however that in the matter of high school work New Jersey is not at all up to the level of New York State in efficiency, or the universal provision for high school instruction. I maintain, to be sure, that we have in some of our cities and our larger towns high schools that are so fully equipped, so thoroughly organized and provided with an equipment of library and apparatus and so fortunate in ability to select and retain competent teachers, that those schools will maintain themselves at a par with any high schools in this or any other state. But when I look over my state as to the opportunities that the young people in the smaller towns and in the rural districts may have for securing the advantages of a high school education, I feel that we are not up to your standard.

Some months ago our state Council of Education, which is a voluntary organization of some of the leading school men of the state, assigned to me for discussion before it this question, Is a system of examinations similar in the main to the Regents' system of New York State, desirable for New Jersey schools? I approached that question with perhaps a strong bias toward

the affirmative. I happen myself to be the supervising principal in a town of a little less than 5000 people. The school of that town is organized in a single building with departments from the kindergarten through the primary and grammar to what we call high school work. During the 10 years that I have been at the head of the school I have had no such thing as formal examinations. My pupils are promoted from grade to grade on what we term the basis of the teacher's judgment as to the ability of the pupil to do the next year's work. It might seem from that that I am among those who are opposed from principle to this doctrine of formal examinations; but it may be that, because of my experience during those 10 years and because of the weaknesses that have developed under my eye through this plan of promotion and graduation, I am all the more in favor of the establishment of uniform examinations.

As I say, when this question was assigned to me for discussion, I approached it with a bias in favor of the affirmative. But I desired to know whether I was right in the position which I held in that matter and I naturally looked for information to this State. This State is too large of course for me to address a letter to all the superintendents and principals of the State asking their judgment in the matter. I knew that I must send out a good many letters in order to get a comparatively small number of responses, because my experience in these matters has shown me that school teachers are too busy to respond to all the requests for information that come to them or for expression of opinion. I secured from the Regents office the little pamphlet that contains the list of high schools in the State with the principals' names, and, in order to make my letters cover as representative a field as I might, I simply began at the first name in the list and ran down 200 names and sent out a letter of inquiry to these 200 men. The schools as you will see would be representative schools, some of them small, some of them large; some of them would be considered in excellent standing and some of them less excellent in standing. My letter read thus:

I have been appointed to investigate and to report to the New Jersey Council of Education on the following question: Is a system of high school examinations similar in the main to the Regents' system of examinations in New York State, desirable for New Jersey schools? I would be glad to know whether the superintendents and principals working under the system believe their schools are better because of the system or would be better without it. Will you favor New Jersey teachers by writing me, giving your judgment as briefly or with as full discussion as you please. I would be specially glad to have specified any objections to the system or any desirable modifications of it.

I received 48 responses to this letter. I knew that there was among teachers and I presumed among principals a good deal of criticism as to the effect of the Regents' system in New York State on the work of the class teacher, and I thought it would be desirable to tabulate the responses that came to me, so that I might get a percentage of the favorable and the unfavorable responses. It may be that the 48 men who wrote to me are not absolutely representative of the men who did not write. It may be possible that the men who did write were all men who were more favorably disposed toward this system than the men who refrained from writing; but I was surprised to find among the letters received only a single one that was adverse to the Regents' system of examinations; all the other writers expressed themselves as favorable to it. Some of them, to be sure, expressed some of the objectionable features of the Regents' system as it affects the work of the class, but even they were agreed that the advantages by far outweigh the disadvantages. I have had an opportunity this morning of talking with some lady teachers who have had classroom work to do under this system. I should infer from their remarks on the subject that I should have found more objection to the Regents' system from the classroom teachers than I did from the principals and superintendents. And the basis of that objection seems to bear wholly on the single point of cramming for the examinations. There are many teachers in the State, perhaps, who feel that they are restricted in their work because of the necessity of

preparing their classes for the examination when the end of the term shall be reached. I do not know how strong this objection may be or how possible it may be to remedy this defect in the system if it exists; but certainly there is to some extent a feeling of that kind.

On the basis of this correspondence with the New York State principals and superintendents, I prepared a brief preliminary report and presented it before our council for discussion at its meeting last month. I anticipated among the men constituting our council a pretty strong opposition to the recommendations that I made in favor of establishing such a system in our state. I was again pleasantly surprised to find but little of such objection among the men. I have been pleased in my later correspondence to find some two or three of the strong men of our state who assert that, while they came to our council meeting disposed to speak against the introduction of any such system in our state, the discussion to which they listened convinced them of the desirability of it, and that they are now advocates of such a system. Our Council of Education, after discussion of the report, provided for appointing a joint committee of the New Jersey Council of Education and the New Jersey Teachers Association. This committee has been appointed and has held a preliminary meeting. The committee consists of men who represent the various fields of school work in our state. It includes our state superintendent of education, it includes one of our strong county superintendents, it includes one of our strong city superintendents, it includes the principal of one of our largest city high schools, the supervising principal of one of our smaller towns, and thus in its deliberations will have before it the whole field of school work in our state.

At a recent meeting of the State Board of Education, which happened to be held in my town, I was invited to speak briefly on this very subject, and afterward the State Board of Education appointed at my request two of their members, the vice president of the board and a member of the education committee, who is a professor in Rutgers College, to sit with us in every deliberation on this question.

Now the responses that I received from the men in your own State presented these reasons for favoring the Regents' system. I have noted them here, not in any sequence of relationship, but just in the order in which they happened to come in the letters in which I received them, single sentences being taken as representative of the tone of the letters. The first letter says: "The Regents examination is one of the chief factors in placing the schools of this State in their present advanced position." Another says: "I question if there is any system more practical for obtaining a uniform system of grading throughout the State." Another: "The system gives great stimulus to all grades of pupils above the seventh. It is stimulating, healthful and beneficial to pupils, parents and teachers. It gives wise direction to high school work and yet leaves sufficient liberty for teachers to do what they think best. It removes the possibility of conscious or unconscious favoritism. It stimulates schools that would otherwise be careless about standards. It gives a lever to obtain from boards of education needed equipment in library or laboratories. It holds teachers up to a standard of accomplishment much higher than it would otherwise be."

Let us stop to consider whether this single fact does not counterbalance all the ill effects; whether it is not a fact that, while there may be a fault in the one direction, there would be a far greater fault in the other direction of lowering the standard of definite acquirement if there were not some such requirement as this before the teachers of the State. I certainly feel that in my own state, and I must confess in my own school, there is such a lowering of standard because of the want of an examination system that will test the deficiencies and thoroughness of acquirement in the several branches of study. All examinations are only incidental to supervision by competent men selected from the ranks of high school principals and make for the uplifting of the schools of the State. A higher standard of scholarship is placed before the communities than is likely to be maintained without them.

"The examinations are perfectly fair tests, not in any sense puzzles nor framed so that the student is confronted with difficulties because of the phraseology of the question." "After instructors become more familiar with the Regents' *Syllabus*, they are able to cover the ground in any particular subject without cramming, and their pupils become more successful in passing the examinations." "It gives us a standard by which to compare work and holds us up to that standard." "All the schools of the State have the same general standard, and a graduate from one school has the same general standing as a graduate from another school. A pupil leaving one school and going to another does not lose any time, as the principal knows from his credentials just what he has done and can immediately place him in his grade of work." "The pupils are more enthusiastic, as they know that they are earning a State standing and will receive at the close of their high school work a diploma which is recognized anywhere in the State." Another man writes: "In this village of only 1000 people we have a high school giving a four year course and fitting for the best colleges. The Regents' system has done much to bring this about, and what it has done here it has done all over the State, small villages containing first class high schools." "We have a high school in this part of the State, where there is a population of only 300 or 400, where the young people can get a college preparation. There is not enough local good sense to have created such schools without such a system."

Now it is my hope that in New Jersey we shall go on with the further discussion of this question till we have devised a plan, essentially on your Regents' system in this State, that will be applicable to the schools of our state and under which we shall secure these three important ends: first, of raising the standard in the weaker schools of our state; second, to encourage high school work in the smaller towns where there is now no suitable high school work provided; and third, to provide specially for these smaller towns an opportunity for the worthy

pupils in the rural districts to secure the advantages of high school instruction. And I am glad of this opportunity of adding that my observation yesterday and today in the Regents office, through which we have been shown by the officers in charge, has been a very strong inspiration to me in the further urging of this work on the men who have to do with the affairs of the schools in our state.

Principal Gurdon B. Miller—I will not attempt to voice the sentiments of any class of schools in the State of New York. However, no doubt what I may say will appeal more directly to the high schools of the middle class and the smaller country high schools. I represent a school very similar to that which Mr Majory has referred to as his own. In our high school we employ only college graduates to do the instructing. I find that these people are not inclined to criticize Regents examinations, claiming that they are of too high a standard, but that they are rather inclined to believe, many times, that the examination is below the possibilities of the students whom they are instructing, and that in the majority of cases they would as soon see an increase in difficulty in the examinations as to see a decrease. Regarding the opinion of teachers, I might relate this incident. Four years ago I had with me at Matteawan a lady who was a graduate of a university of this State, a woman of broad scholarship, bright, intellectual, who after five years' service I came to deem a very valuable teacher of Latin. She was invited to take a position in a city in an adjoining state, in a high school, at a very much advanced salary, and she took the place. After a service of two years in the city she wrote me to this effect: "I miss very much the sound moral influence of the State supervision and of the State examinations as held in the high schools of the State of New York." There at least was one testimonial from a competent woman, which shows a feeling of very intense respect for the work of the Regents' system, and also a feeling on her part that the state in which she was then working was not doing its duty toward its own high schools. Are we emphasizing that side of the question in

our schools today? Are we making the moral influence of state supervision and of examinations just what it should be? The mental attitude of the principals and faculties in our city high schools is doubtless what it should be. We know that to be the case in the great majority of city high schools; but take the middle class, the smaller schools, are we emphasizing that phase of the work as much as we might? Do we realize to the degree that we ought what it means to be members of the University of the State of New York? Do we put before the people of our communities and our pupils the reality that our libraries are not our own, that they are the gift of the commonwealth of the State of New York? Do we tell them that the charter on the walls of our high school assembly room is the badge of our proficiency in the work; and do we let them feel, every day and hour, that it ought to be a promise of success in the future for the schools over which we have charge? I believe there are greater possibilities along this line than most of us realize; I believe very sincerely that if, in our daily work with our students and in our conferences with the faculties over which we have charge, our attitude toward this system is what it should be, there will come from year to year a strong moral fiber into the work of the schools over which we have charge; and when this is once accomplished, I believe the academic work will take care of itself. When the faculty believe that we as principals fully appreciate the work of the Regents, when they come to believe that we have implicit faith in the influence of that work on the school and in the force and power of the examinations; when they believe that you have thorough faith in the *Academic Syllabus* and in its various parts, then they will come to think of it as something which they must study carefully and which they must put in operation according to your ideas. And I believe that, when examination time comes, it ought to be welcomed by principal, by faculty and by students as the time when this great State opens to us the door of opportunity. I believe implicitly in the moral power that can be exerted in any school in this State by the attitude

of the principal and faculty toward the sound content of the syllabus and the administration of the examinations.

Reverend Professor William F. Clark—I am glad to be able to say that I have been very much instructed by what we have heard here this afternoon from Regent Fitch and Messrs Majory and Miller, and I would say at the outset, since the point on which I had intended to say a few words has already been treated more fully by Regent Fitch, that I am not at all in sympathy with those who see little or nothing good in examinations. In the first place, as has already been shown, they keep up the standard of scholarship, the standard of discipline and training and the standard of knowledge, and they are a stimulus both to student and teacher; and, in spite of all that is said nowadays in the schools of pedagogy about competitive examinations as a motive for study, where we are told that it is very ill advised to appeal to any motive except that of learning for its own sake or for the sake of fitting one for some career in life, yet it seems to me that to ignore competition is to neglect to make use of a lawful stimulus which is within our power for the advancement of learning and the advancement of training. However, as Regent Fitch has already pointed out, examinations have an element open to objections, greater or less according to the method of the teacher in the classroom, and that element is the fact that they allow and perhaps indirectly encourage what has been called cramming. No matter how we may try to explain it, that fact remains, specially for those who are inclined during a part of the year to neglect their daily task of allotted work. Now cramming within certain lines, I hold, is not necessarily an evil. There are certain things it is well for students to cram as quickly as they can. For example, getting the etymology of a language; let us cram it as rapidly and thoroughly as we can and the sooner the better. And, if it is crammed methodically, then probably that cramming will not contain anything of an element of evil, or the baneful element of which Regent Fitch so strongly spoke. Hence for such branches as the etymology of a lan-

guage, the outlines of geography and other kindred branches, we have nothing to fear from this element of evil in examinations. It is when we come to the higher field of work, such as the last year of the high school, to something more delicate than etymology, it is when we come to the developing of thought, to the training of the faculty of admiration, which Ruskin called the end and aim of education, when we endeavor to develop in the boy or girl the faculty of appreciating the masterpieces of literature, whether it be English, Latin, Greek, German or French, that we find there is in examinations a deficiency in bringing out that higher training of the classroom, that training of the intellectual faculty for the appreciation of a masterpiece on which the teacher spends his best hours. Of course we may say that we will endeavor to shape our questions in a way that will bring out a manifestation of that higher work, the scholarly work which should be done in the high school as well as the college, and that the questions can be so framed that there will be no difficulty in detecting that manifestation of skill as well as the manifestation of knowledge in the lower branches such as etymology. Whether this can be done satisfactorily or not is something which we are not all agreed on, and whether it can be done satisfactorily in a written examination is certainly not agreed on. There are some who hold that this can be done satisfactorily in a written paper; there are others who hold that, to bring out the finer points of classroom training, one needs an oral examination, one needs the opportunity of proposing questions which can not be evaded or misunderstood. One of the difficulties which most examiners meet with is the difficulty of detecting whether that knowledge which is shown on the paper is vital knowledge or is knowledge gained in a manner which does not give training. We know that, when it is understood that papers will be set, for example, on four books of Xenophon, six books of Virgil and so many books of Homer, boys with a good memory have been known so to prepare that matter independent of the Greek or Latin text that, when they meet the passage set, they will have little difficulty in fitting it to the translation

which they almost know by heart; and, if we have had very much to do with examination papers, we must recognize that it is almost impossible at times to determine whether the knowledge manifested there is vital knowledge or knowledge gained from outside. To meet this difficulty, I have simply one suggestion to make, and I suppose that in many cases it is impossible to put it in practice; I do not see very well how it could be adopted by the Regents of the University of the State of New York. We put it in practice ourselves, and it neutralizes that element of evil of which we have spoken, which we call the evil of cramming. This suggestion is to have examinations and to make them the qualifying standard, but not to allow examinations to be the sole qualifying element or factor; to have the quality of the work of the year also one of the factors or elements which are to determine whether the student is prepared to pass to a higher grade in the high school, or to pass from the high school to the college. It may be that we should give the year's work a very small fraction of the mark which is to determine whether the student is to pass to a higher grade or not. It may be that we should make it a large fraction of that qualifying condition. But, whether it be large or small, certainly it can be arranged so that the examination is not the sole test by which the student is to pass from one grade in the high school to another or from the high school to college. On the one hand, it has not the danger of cramming and, on the other, we encourage daily application to recitation and to the finer work of the classroom, which is the development of taste, which is after all the chief end and aim of humanistic training.

It may not be amiss to observe here, in regard to the two ends which examinations may be supposed to serve, that we may call the one qualifying for promotion, the other competition. In competitive examinations, I think that written examinations are the best test and sometimes the only satisfactory test when there is a question of close competition. But all that I have said with reference to examinations applies chiefly to qualifying examinations, as to whether a student is qualified to go from one grade to another or to pass from the high school to the college.

REQUIREMENTS FOR ADMISSION TO MEDICAL SCHOOLS, INCLUDING THE COMBINED BACCALAUREATE AND MEDICAL COURSE

BY REGENT ALBERT VANDER VEER

Having lived long enough to witness the great progress that has been made in medical education in this State, I am profoundly grateful for the opportunity that presents itself to me at this time to review this subject somewhat briefly. I believe the discussion on which we are now about to enter will result ultimately some years hence in establishing between the institutions granting baccalaureate degrees and the independent medical schools a more harmonious action, all of which will result to the benefit of the medical profession. I am profoundly grateful that it is my privilege and pleasure to convey to those of you who are here as citizens of the State of New York the pleasant experiences that I have in mind of the kind things that have been said about the laws of the State of New York in reference to medical education, as I have heard them in our national associations, in our associations of American surgeons and of American physicians, in short wherever I have gone throughout the United States. So, as I say, these are pleasant moments for me, coming as I do from active life to discharge a duty which I realize perhaps would be better discharged by some other, some one more conversant with this line of work.

In the brief address I am to present on the subject of "Requirements for Admission to Medical Colleges, etc.," it is not out of place for me to take into consideration the condition that existed a little more than four decades past, occupying but a few moments in retrospection. Then, any young man who felt a desire to enter the ranks of the medical profession could, without a college or high school education, leave the counting-room, the warehouse or farm, register with some accredited physician, matriculate with his chosen medical school, and take his chances of final graduation.

Even at that time the faculty of more than one college discussed for some time the proper course to pursue in order to

keep from entering on the study of medicine the illiterate and totally unprepared young man, who, even in the very lax days of final requirements, regarding strict examinations, etc., would inevitably fail. It became a source of sadness and humiliation to be obliged to tell him, at the end of his two years work, that he was not properly fitted even to enter on the study of medicine. It then became necessary for him either to begin anew his studies for preparation, or go to some other state, some other institution, that would grant him a diploma without any compunctions of conscience or thought as to his future professional career. This finally ended in some colleges in this State voluntarily introducing a preliminary examination, which had a marked effect in diminishing the number of students attending well regulated schools, but elevated the standard of work accomplished.

Instruction in medical colleges at that time consisted of a two years course of from 14 to 20 weeks each year and three years registration with a preceptor. Some institutions endeavored to give even these two courses in one year, but this was too flagrant an exhibition of commercialism, and the college persisting in this method was subjected to severe criticism.

After the close of the Civil War a marked agitation was apparent throughout this and a few of the eastern states, in reference to the preparation of medical students, and the term was finally extended to a minimum of 20, not above 24, weeks in one year, the student being required to attend two full courses in two separate years. This was increased to three years soon after, and, finally, laws were enacted requiring a four years course of from six to nine months of lectures each calendar year.

When you consider that this increase of requirements, on the part of the student who was about to enter on the study of medicine, was almost entirely brought about within the ranks of the medical profession, and that most medical colleges joined heartily in this move, though, as is well known, they were not endowed, but their income derived entirely from the number

of students who matriculated, it certainly reflects great credit on the profession of medicine, in that they exhibited such an earnest desire to elevate the standard of medical education.

Along with the increase in requirements for medical students, the profession moved in a solid front for the enactment of a law organizing state medical examining boards, so that the work of the colleges could be justly graded, giving the possessor of a diploma only the privilege of applying for examination before the State board when desiring to enter on the practice of medicine in this State. This has had a most salutary effect in elevating the standards of our profession.

Few commonwealths have on their statute books better laws than those that are now enforced in this State, and all this is largely due to the efforts of the medical profession itself. It is proper that the State should exercise the right of deciding who shall practise so important a profession as that of medicine and surgery and should control all requirements.

While the smallest hamlet has the right to demand the best that the State can afford, yet it is possible that it can not always command the same for lack of adequate remuneration; however, this should not be taken into consideration when applied to the medical student, or to the discharge of so important a profession as that of medicine.

It is interesting to look into this subject carefully and study the various suggestions that have led up to the present status of affairs. Fortunately for the public, fortunately for the ambitious young man in this State, who desires to enter the profession of medicine, a standard is now in operation, which is yielding fairly good results, and of this it might be well for us to speak.

There are two methods in this State whereby a student may enter a medical school, i. e. by holding a high school certificate, or having completed studies equivalent, which will obtain a medical student certificate, or by being a graduate possessing a baccalaureate degree.

The high school graduate, holding his certificate, can now enter a medical college, and continue his work, graduating at

the end of four years, providing he is able to pass all of his examinations, while another class of students enter through their diplomas of graduation, or baccalaureate degree. The former course is reached, say at the age of 19. The man pursues his four years in a medical college, and graduates at the age of 23. He may take his two years hospital instruction and at the age of 25 is ready to enter on the practice of his profession.

The man who has secured his baccalaureate degree can hardly obtain it under the age of 22. Add to this his three or four years medical course, the two years of hospital practice, and he reaches the age of 27 or 28 before he is ready to enter on real practice.

Here is presented a condition that really seems to work to the disadvantage of the graduate from a literary college, but, when we look into the statistics, and study the subject, we learn that universities have endeavored to give to the fourth year student, in his academic course, a line of study comprising such branches as are taught in the medical colleges in the first of the four years course, thus enabling him to secure his combined course in seven years, by giving him a credit of one year. The question is being agitated regarding the enforcement of a law compelling the student to secure a baccalaureate degree before entering on the study of medicine. It is scarcely possible that such a law would be passed by our Legislature, but it is eminently desirable that such arrangements be made with our universities as will enable the fourth year of study in a literary college to be so planned that it will be counted for the first year in the medical school.

I am frank to state that I believe there must be marked concession on the part of each institution. Universities that can enable their students to complete a satisfactory course in four years must plan the final year in their curriculum so as to comprise the important study of anatomy, as it is now taught in the first of the four years course in the medical colleges, in addition to other branches that can more easily be arranged.

In registering college courses for the allowance of one year in term of study for admission to medical schools, such courses should either include the studies that usually constitute the work of the first medical year, or some training in general biology, physics, and chemistry, Latin, French or German. One modern language should be required, either French or German, though Spanish or Italian may be substituted if necessary.

Let us look somewhat carefully into the statistics collected in the Regents office. A careful study of the combined baccalaureate and medical courses of 34 representative universities with medical departments or affiliated schools, found in 28 political divisions of the United States, based on college courses whose degrees meet the minimum requirements of the Court of Appeals and whose medical courses are four years in length, gives the following results:

The bachelor of arts degree from 28 of the institutions requires seven years for its completion after eight years of pre-academic preparation for admission; three require six; one requires five; two are unknown. Two medical schools require for admission the completion of a grammar school course; 11 a one year high school; four, two years; five, three years; seven, four years; one, one year of college; one, two years of college; one, three years of college; one, a bachelor's degree; one, a bachelor's degree with specific sciences.

The college courses of the 34 institutions were four years in length. Of the medical schools, 31 had four year courses; three, had two year. In 31 institutions the combined college and medical course was seven years in length; in three, six years.

Passing over the baccalaureate subjects to those that can be grouped as medical, the first medical year of 27 schools gave an average of 364 hours to anatomy, including such terms as angiology, microscopic anatomy, myology, osteology, splanchnology, syndesmology. Twenty five schools gave an average of 192 hours to biology, including botany, embryology, histology, microscopy; 27 schools gave an average of 218 hours to chemistry, including organic, inorganic, analysis (qualitative and

quantitative), physiologic chemistry, toxicology, and urinalysis. Ten schools gave an average of 98 hours to physics, and several institutions included the subject, but did not give exact information regarding the time devoted to the subject; 23 schools gave an average of 124 hours to physiology. These averages aggregate 996 hours for the five subjects.

In the first four years of the combined courses, the following average number of hours were given the same subjects, viz, anatomy, 196; biology, 159; chemistry, 179; physics, 184; physiology, 101; total 819 hours.

The following table will present these subjects for comparison by first medical year and combined baccalaureate course.

FIRST MEDICAL YEAR		COMBINED BACCALAUREATE COURSE
Anatomy	364 hours	196 hours
Biology	192 "	159 "
Chemistry	218 "	179 "
Physics	98 "	184 "
Physiology	124 "	101 "

A careful comparison of the results of this study with the recommendations of the American Association of Medical Faculties at its June meeting in 1899 suggests the following.

The minimum requirement of a medical year should presuppose 15 hours a week for 40 weeks—600 hours. For registration purposes there should be 750 hours of instruction and 150 hours of laboratory, practical and dissection, each of these 150 laboratory hours to require two hours time. The time should be distributed somewhat as follows:

	INSTRUCTION	LABORATORY
Anatomy	200 hours	At least 80 hours
Biologic sciences	150 "	" 60 "
Chemistry	150 "	" 60 "
Physics	150 "	" 60 "
Physiology	100 "	" 40 "
	<hr/> 750 "	<hr/> 300 (150 hours)

In comparison with this table may be considered the following requirements of Johns Hopkins, the only university of the United States that requires the baccalaureate degree for admission, including certain specific sciences.

In the sophomore year, chemistry 281 hours; English 94 hours; German 125 hours; physics 219 hours.

In the junior year, biology 281 hours; chemistry 281 hours; English 94 hours; French 125 hours.

In the senior year, biology 281 hours; history 125 hours; philosophy 156 hours.

In the first year of the medical school, anatomy 681 hours; chemistry 152 hours; philosophy 72 hours.

The requirements of Johns Hopkins then become

Anatomy	681	hours
Biologic sciences	562	"
Chemistry	714	"
English	188	"
French	125	"
German	125	"
History	125	"
Physics	219	"
Philosophy	228	"

2967 "

Using the experience of Johns Hopkins as a guide, it would be safe to relegate the physics and part of the chemistry to the sophomore year; chemistry and part of the biologic sciences to the junior year; the remaining biologic sciences, anatomy and physiology to the senior year.

The law recently passed by the Legislature to allow a student possessing a baccalaureate degree to complete his medical education in three years will fail to accomplish its purpose if all baccalaureate degrees are to be recognized because of the very excellent four years course that is now offered by the medical colleges in this State. The first year comprises so much anatomy, chemistry and physiology that a

portion of it is not taught at all in some of the literary colleges, or is given in such a manner that it would be impossible for the student to enter a medical college in the second year.

As I have stated, the colleges granting a baccalaureate degree, and expecting their students to enter a medical college, will have to rearrange their curriculum so as to aid the student who has this course in mind, in a more advantageous manner in the future than they have in the past.

Again, I am of the opinion that many of our medical colleges will continue to have their ranks recruited largely from high schools granting a medical student certificate, and that these men will enter the profession of medicine, perform their duties thoroughly well, and meet the commendation and encouragement of the public at large.

One can not deny that a three years medical course based on a satisfactory four years college course is preferable to a four years medical course based on a high school certificate, but, as I have stated, the course will need to be very decidedly changed in the fourth year in the institution granting a baccalaureate degree. Then, again, it will not be possible for many years to come so to elevate the standard of preparation for medical students as to eliminate a class of young men who can secure only a high school certificate, and a large majority of the medical institutions will continue to accept these certificates. The greatest embarrassment that presents itself today, in the effort to bring into our medical colleges a class of students whose preparation is such as is absolutely required for a proper understanding of the subjects taught, is that the medical course can not be made elective. To a great degree it is fixed, and the instruction is such that it can not be deviated from. Herein lies the weakness of the institutions granting baccalaureate degrees. They have not as yet entered on the higher plane of instruction in which the medical colleges have been leading.

Furthermore, I am convinced that seven years for the combined baccalaureate and medical courses represents the highest practicable standard for those students of medicine that are able

to take college work, and that this fact will be generally admitted as time goes on.

In 19 departments of universities both baccalaureate and medical degrees are now obtained on three years in the baccalaureate and four years in the medical course. In 21 departments of universities the baccalaureate course is four years in length and the medical course three years in length. Forty three independent medical schools make an allowance of one year to graduates in arts and science of reputable colleges. In 28 medical schools less than seven years are required for both baccalaureate and professional degrees. Forty four do not give us satisfactory information on this subject.

In 79 medical schools an allowance of one year is also made to graduates in dentistry; in 78 to graduates in pharmacy; in 59 to graduates in veterinary medicine; in two to graduates in osteopathy; in 68 there is no evidence of any allowance in these classes.

It is my present opinion that the Regents should be somewhat elastic in registering college courses under the amended law. It should be sufficient for them to require that the college work be of such a character as will fit students for admission to advanced standing in medicine. It will be contended that only those schools that are wealthy enough to provide many courses from which candidates have the privilege of election within certain limits can admit to the second year in medicine without disorganizing their work, students with baccalaureate degrees representing only a broad training in Latin, French and German, physics, chemistry, biology and mathematics.

It may be that many schools now giving generally an allowance of one year to college graduates may be driven like Yale and the University of Pennsylvania to abandon this plan and to admit to the second year only such students as have covered satisfactorily the work embraced in the first medical year.

The great advance made in the medicine and surgery of today is not so much the result of better preparation by baccalaureate degree, and otherwise, as it is the realization of the necessity of

scientific investigation into the causes and treatment of disease, a class of medical work requiring largely a practical medical training. Investigation into the causes of disease has developed facts that are strictly medical, and, while these great discoveries have come largely from men who have had careful college preparation, yet it is also true that these great truths have emanated from a class of men working in small institutions, where one line of study was being carried out more particularly.

Finally, the subject as it is presented today emphasizes itself in this particular, that the fourth year work in the college granting the baccalaureate degree must more clearly coincide with that of the first of the four years course now required by nearly all of the medical colleges in the United States.

President George E. Merrill—It has been a great gratification to have the outline of this subject laid before us so fully by Regent Vander Veer, who has spoken from far more intimate knowledge of the medical side of the subject than anyone connected with a college can be supposed to have. The present state of the New York law concerning this subject is an approach, it seems to me, to that which we should all welcome. There are three or four aspects of the subject which are of importance. There is one point of view from the college which ought to be emphasized; there is another from the medical school, which would lead us to conclude that the change recently made, with the opportunities to which it opens the way, should be approved, and I fully believe that the public will demand that advances shall be made in this broad course which we have now entered on. The great injustice which was done to the college in the years past, till the present change in the law came about, is very patent. The high school graduate of a registered school could come to the doors of the medical college and be received on exactly the same footing that the graduate from a college would have, with the exception that the latter might claim in certain cases somewhat advanced credit. He could not as a regular matter come to the doors of the medical school and expect to finish his course there in three years. In

the old times we used to consider the college course so strenuous and important that a man's mere survival for three years after it was finished would entitle him to the master's degree in arts. It would seem as if we had gone altogether too far in the other direction, when we demand of the college graduate, over and above the requirements exacted of the high school graduate, so much of an advance as would be represented by three or four years of study, and yet do not let him have any of the advantage of that study. In that the pendulum swung to the very farthest extreme upon the other side. Now, as I understand it, opportunity is offered to the Regents so to arrange an approved course in colleges that it can be dovetailed into the courses of the medical schools, and with concessions upon both sides, as Regent Vander Veer has said must be the case, the arrangement will become a practicable one. I think that the college deserves the encouragement that such action as this would give. It is small encouragement to a man to add to his endowments of learning, to the training of his mind and his facilities for service, to say to him, "Your college course will act rather as a detriment than as an advantage to you if you are going to pursue a professional career; you will have to go out, as has been shown this afternoon, from your school life with three or four years more of study than the man who has not taken a college course but with no larger claims upon the confidence of the public so far as your work in the schools is concerned." It is not an encouragement to a man to say to him, "You must begin the practice of your profession three or four years later than the graduate of the high school can begin the practice of his profession." It has been felt to be a decided injustice in the profession of the teacher that the normal school graduate had privileges which were not accorded to graduates of colleges, the graduates of colleges having to go through the routine examinations from which the graduates of the normal schools were excused in order to receive certificates as teachers in New York State. Now that has been done away. I rejoice that we have come to an advanced position in this

respect, and that the claim of the college for recognition of its graduate is being heard throughout the land.

There is one question for the college and for us with reference to this matter which must not be passed by in silence—the very practical question whether the necessary requirements for entrance to the second year of the medical course can be provided in the college course. The whole matter hinges upon that in my judgment. Now, as a matter of fact, perhaps two thirds of the requirements of the first year of the medical course are already given in colleges. The man from a college is made to go directly over his course again in respect to many subjects of the first year of the medical course. It does not seem just that this should be demanded of him, provided the college can make such concessions as Regent Vander Veer has said must be made so that more of the medical course can be taken in connection with the college work. Dr Egbert Le Fevre of the New York University and Bellevue Hospital Medical College writes to me that he fully believes that such arrangements can be made that the college course can well sustain all that ought to be required in order to bring about the desired result. He has intimated to me that from the first year of the medical school and also from the second year of the medical school certain subjects could be thrown back into the college course. I believe that almost all of those subjects can well be taken by students in college, who have made up their minds to enter the medical profession. If a few of the studies now on the college curriculum as early as the sophomore year can still be kept there, and if we can add to them certain other studies of the first medical year; if we can also put into the junior and senior years of the college course certain studies of the second year of the medical school, the course will be sufficiently covered in that particular by the college; and I believe it to be a possible thing for the college to do this work. The crucial difficulty will come, however, in my judgment, in the introduction of practical anatomy in the college work. I do not believe that that should be asked of the college; I do not believe that there is any need of asking it; and I think that the educational institutions which already combine college and medical work have proved to us that there can be such an arrangement of studies for the seven years that

the college can take on successfully all that the medical school need require of it, if the single subject of dissection and the study of the human frame in practical anatomy be not required.

On the part of the medical school I think it ought to be a matter of pride to require a high grade of men seeking to enter the profession—men of a high grade of preparatory instruction. If it is not possible for the whole four years of the college course to be demanded before entrance into a medical school, I do believe that far more should be required than mere graduation of a man from a high school or from an academy. The better material that would be found in the men coming into the medical schools with such larger equipment would in a very short time, I think, settle the question forever as to the desirability of admitting those of a lower degree—at any rate, of admitting them on any sort of equality with the men who have had two or three or four years more of preparatory study; and I believe that quicker results would come in the long run from making some modification of the two courses which would amalgamate them, than from the present condition of things. We should receive to active work in the practice of the profession men better fitted to that work in less time than we now give to men who, with less preparation in the preparatory school, go through with the full four years course of the medical school and then go out into the world without that preparation of mind, that facility of judgment and that breadth of culture that are gained in the three or four extra years of college study. How many years after the medical school course is finished must be taken to catch up professionally with the man who has had three or four years already in active practice, it may be impossible for us to say; but it may very readily be believed, and I should not hesitate to take the position, that we might ordinarily expect men with the larger preparation afforded them from preceding work, to reach a corresponding position quicker after graduation than under the other rule. Of course it is true that the public at large demands that a man shall come to his work as soon as possible. Of course it is true that year by year the grades advance and it becomes more difficult for a student to enter on his professional work at an early age. Equally it is true that the public demand is growing that the

narrowness of specialization shall be done away, that the man who practises any profession shall know something besides the knife edge of his profession, that he shall have some breadth of culture, some standing as a common citizen, something that will bring him into contact with his fellow men and enable him to do work outside of his mere profession as a man should work. And I believe that the professional work itself will always be the better; if there be the trained judicial mind, the mind conversant with affairs, behind the specialistic training. President Hadley in his report for this year takes up this very question and pleads against what he seems to think the advancing tendency in educational institutions to demand for entrance on any of the professions the B. A. degree or its equivalent in college work. While he recognizes fully this general facility of mind of which I have spoken as the result of college work, he deprecates limiting to college men entrance on the special study of the schools, and maintains that, wherever a man gets his preparation, provided it is adequate for the purpose, he is to be welcomed and entitled to have due credit given to it. That might seem to beg the question, and while I should grant that there is in President Hadley's position something of force, yet I believe it to be true that it is not of sufficient force for us to allow it to turn the scales and to lead us to admit into the technical schools those men who have not had such preliminary training as shall give to them the largest possible facility of mind; and I believe that in this special case before us some way can be found by concession on the part of the medical school and equal concession on the part of the college, by which the two courses shall be brought together.

Secretary Abram T. Kerr—As pointed out to you by Dr Vander Veer at the opening of the discussion on this subject, medical education has been making rapid strides. From a course covering two years it has been extended to a course occupying four years, and now this is becoming overcrowded. The time limit has been extended to make room for the many subjects which must be taught.

In considering what should be required for admission to a medical college, you will, I think, agree with me that it is desirable that the medical student shall have that broad and

liberal education indicated by the baccalaureate degree, and that it is essential that he shall have at least a certain amount of ability. We indicate this ability in New York State by the possession of a medical student certificate. A medical student certificate is now issued for 48 academic counts. It is supposed to be equivalent to the completion of a satisfactory high school course covering four years. This insures that the student shall have a certain mental caliber, but it does not insure that he shall have a training which will specially fit him to begin the study of medicine, for it is granted for any 48 counts or any kind of a high school course.

I can not entirely agree with Mr Parsons when he says that high school graduation is sufficient for a minimum state requirement. High school graduation may be sufficient if the course is specified. In May 1900 the Medical Council recommended such a course leading to a special medical student certificate or diploma. The subjects recommended, to be required in all cases for admission to medical schools, by the Medical Council, are English, English reading, Latin, German, United States, English, Greek and Roman history, civil government, algebra, plane geometry, physical geography and drawing. To round out this course, certain other studies are supplied. This course has been recommended: now let it be required. The subjects are well selected and well designed to fit a student for work in medicine. I believe that at the present time nearly all the high schools in this State are prepared to offer such a course, or, if not, I am told that most of them within three years will be.

In this country the maximum time limit for the study of medicine has been four years, and the course is very much overcrowded. This overcrowding has been recognized in England, where the course has been extended to five years. In Germany also they require 10 semesters, equivalent to five years, and beginning with 1903 they are to require in addition one year of hospital training before a man will be licensed to practise medicine. With a course so crowded as to induce these countries to extend it from four to five years, we now propose to shorten from four to three years, accepting in place of the first year in the medical college evidence of the completion of a satisfactory college course.

Some medical colleges in this country permit a student with a baccalaureate degree to graduate in three years. If in his college course a student has selected, as is now possible in most colleges and universities, those subjects which are taught in the first year of the medical course, then at the end of his course in medicine he will be found to be well up with his class. But, if, on the other hand, he has been allowed one year in the medical college for an academic course which did not include the subjects of the medical course, his standing at graduation will be rather disappointing. Dean Vaughn of the University of Michigan, after 25 years experience, in speaking of this class of students says, "they as a rule graduate at the foot of the class," and the late Provost Pepper of the University of Pennsylvania has spoken in somewhat the same strain.

Now in some universities, those having medical departments, it is possible to shorten the time necessary to obtain the baccalaureate and medical degrees by one and in a few cases by two years. The Regents have been making a careful investigation of these courses. A synopsis of this you have heard today from Dr Vander Veer. I have also had the pleasure of examining a tabulated study of it. In all of these institutions, with the exception of Johns Hopkins, it was possible to cut off one year. In Johns Hopkins no time allowance is made for the baccalaureate degree. The academic department of Cornell University has had a rule, that "juniors and seniors in good standing are allowed, with the permission of the faculty of arts and sciences and with the consent of the college concerned, to elect studies in other faculties which shall count toward graduation in the academic department; but the sum total of the hours elected can not exceed the number required for one year's work in such college." This applies to any of the colleges, the engineering as well as the medical. Within the past year the academic department of Cornell has made another ruling with regard to medical students, and now "no student in the academic department is allowed to register in the medical college until the beginning of his senior year, but he may then devote the whole of that year to studies in the medical college." In the University of Michigan the last two years in arts may be taken in the medical college. In other words then, the academic

department recognizes and gives credit for the work done in the medical college, but the medical college does not give credit for the work done in the academic department. The first year of the medical course contains such subjects as physiology, anatomy, embryology, histology, bacteriology, physics and chemistry, subjects which are taught also in the academic department. In those universities with medical departments the students are permitted to take these subjects in the medical college with the medical students instead of in the academic department, and receive full credit. Now what is the standing after graduation of the students who have had this training? We found with our students in the recent competitive examination for positions as resident physicians and surgeons in hospitals in New York city, that those students who had taken a full four years course in a university or college and had then taken a four years course in a medical school stood best; that those students who had taken the combined baccalaureate and medical courses were next; that those who had not had such training did not do as well. This was in the competitive examinations for internes in the hospitals.

A student, then, who wishes to complete his two courses in less than eight years should elect in his academic course a certain number of those subjects which are required in the first year of the medical course. If he is in a university connected with a medical college, this may be done as designated. If he is in a college or university without a medical department, the Regents now propose to permit him to shorten his course to seven years, provided his college course shall have included not less than the minimum requirements prescribed.

The baccalaureate degree has no fixed value. It may represent a very high grade of work or may be given for work no higher than that of a high school or even lower than that. Moreover, even if the value were fixed, the baccalaureate degree is and should be granted for a great diversity of work. It is imperative, I think, that, unless a student has included in his baccalaureate work certain specified subjects, he should not be granted credit for the first year's work in medicine. Work in the languages, mathematics and humanities, however valuable these may be, can not for the medical student replace his an-

atomy, physiology, histology, embryology, chemistry and physics. It should therefore be required that the college course for which a year's credit is given shall include a year's work selected from the first two years of the medical course. Many of these studies are now offered by the colleges and universities, and others could easily be added.

There is one subject that may cause embarrassment and that is practical human anatomy (dissection). In place of this, I see no objection to substituting an equal amount of work from the second year of the medical college. Anatomy is perhaps the most fundamental subject of the medical course, and in place of it, it is not possible to substitute comparative anatomy, though this is a most valuable aid to practical human anatomy.

The minimum requirements prescribed in place of the first year of the medical course should be academic work equivalent to one year of medical work, not in time, but in work done, subject for subject. I am sure that it will not be difficult for our colleges and universities to do this, so that the prospective medical student may easily enter the medical college and obtain one year's credit.

President Rush Rhees—I am always moved to make a personal explanation when I am introduced as the president of a university. You know that in the case of Rochester the name is due to the tendencies of earlier years to adopt large terminology. The work of the institution that I represent is that of a college and claims to be nothing more, and I shall speak to you from the point of view of one interested in the work of a college. I am very much indebted to Regent Vander Veer for his clear presentation of the difficulties of the subject, and I confess to you that I come to the consideration of the subject with a deep sense of the difficulty of it. It unquestionably is timely, for we are face to face with a demand, to which I think, we must listen, for a reduction in the length of time expended in acquiring a complete education for entrance on life; in fact, that demand affects all the branches of higher education. It is to be very seriously heeded by those who have charge of secondary education and primary education; and we ought to consider the question that is before us this afternoon in its large relation rather than simply in its bearing on the college or the medical school

or the two combined. But, inasmuch as it does affect us particularly, I am very glad to remember the words spoken by Regent Vander Veer in his address, viz an acknowledgment that, if the end aimed at by the recent law is to be secured, it must be by a concession on both sides. I think the statement made by the speaker who has immediately preceded me has made it quite apparent that it is not possible for the medical school to make much reduction in its course for I fancy that the medical schools have not introduced subjects into their curriculums for the sake of filling up four years or five years or six years, but because they consider that the subjects taught are essential to the best training of a man for the practice of medicine. It is true, however, that our professional schools, our colleges and our preparatory schools or secondary schools have not come so close together as they could come in the arrangement of their curriculums. The colleges are making in many respects undue demands on our secondary schools in the requirements for admission; and it is possible that the medical schools may come to an agreement with the colleges with reference to what may be regarded as a medical preparatory course, which would still leave to the college the work which is of distinctly college grade. This leads to the consideration of the supreme difficulty in connection with this question. As has already been noted both by Dr Merrill and by Secretary Abram T. Kerr, the teaching of human anatomy in colleges involves difficulties so great that I fancy it will be a long time before it is introduced. In addition to the administrative difficulties of introducing such a subject into our collegiate institutions and of securing the teaching of the subject with anything like the thoroughness that is essential for an adequate medical training, there is the obvious disadvantage of introducing into the college course a subject which will be of interest only to those who are planning to take up the work of the medical course afterward; for we can not think that it would be of any particular value to a man who expected to go into the profession of teaching or some other activity of life to have given his time to dissection and minute study of human anatomy. The other subjects usually required in the first year of the medical course, as exhibited in the catalogues of several institutions, may, it

seems to me, find a place naturally in the college. In the consideration of them, I would like to emphasize the criterion by which a subject should be judged which is contemplated for introduction into the college course. I have hinted at it in the criticism which I have given on the introduction of anatomy. The college at present stands for what we call liberal culture. It is offering education which is of value in itself for the enlargement of man and his powers and does not immediately look to preparation for any profession. In our modern conception of college work, however, the studies selected primarily for the development of a man's powers and the enrichment of his mind, are often so chosen that incidentally they will fit him more readily and rapidly for any particular work that he desires to pursue afterward. This enlargement of conception comes with the introduction of the elective system, and it consequently happens that we are offering in our colleges studies which are required in the earlier stages of the courses in technical engineering, and, as has already been indicated, some required in the first year of the medical course. Some of these medical studies are entirely suitable to college work. In contrast with the study of anatomy, to which I have made reference, take for instance the study of bacteriology. Bacteriology may be well taught in a college, for it is of interest to a wide circle of students. It is of value to the teacher of science; it may be of quite as great value to the sanitary engineer, and to the agricultural specialist, and it may prove to be of considerable importance to the practical chemist.

Looking, then, more minutely at some of the requirements, let us consider what other subjects than bacteriology may be taught in college with advantage to the medical course. Physics we find required for the first year of the medical course at Columbia and at Cornell. It is a prerequisite at Johns Hopkins and at Harvard. The college can offer not only the physics that is offered in any medical course, but it can offer from two to four times as much physics in such a way that a man could gain acquaintance with the whole subject, or find out whether he desired to follow out any one line of it.

Chemistry is a prerequisite for admission at Johns Hopkins and at Harvard. It is taught in the first year of the medical

course at Columbia, Cornell and the University of Pennsylvania. I am speaking now of general chemistry. In most colleges advanced work in general chemistry is required, and in all colleges there is abundant opportunity for work in the laboratories which includes work in organic chemistry and physiological chemistry. I think it would be difficult for the college to take up pathologic chemistry.

Biology is a prerequisite at Johns Hopkins. It is taught in the first year at Columbia, Harvard and the University of Pennsylvania. The college I represent offers not only from 190 hours to 510 hours in biology, including bacteriology, histology and embryology, but in many respects the subjects are treated more fully than in the courses offered in the best medical schools, and these courses are offered not because we contemplate the preparation of men for medicine, but because we think this work good for the education of men in general, disregarding entirely the question as to the professions into which they are ultimately to go.

The subject of physiology, which is ordinarily required in the first year of the medical course, is a more difficult one. The college can teach human physiology to a certain extent. Beyond that, I fancy, the same difficulties face us as when we consider the introduction of anatomy into the college course. So much of human physiology as is dependent on minute knowledge of and laboratory acquaintance with the human form and frame, we must eliminate from the college. I believe that the college can do much more advanced work than it is doing, and certainly here is an opportunity for comparative study. Human physiology as taught in the college that I represent is done by means of illustrations from the anatomy and physiology of the cat. Each student who pursues that course—and every student is required to pursue it—has before him throughout the course the body of a cat, which he dissects and all the parts of which he studies minutely in some particulars, making microscopic examination of the tissues, becoming as thoroughly acquainted with this particular type of vertebrate form as it is possible for him to do. As the gentleman from Cornell has wisely said, comparative anatomy can be no substitute for human anatomy, though it can be a very valuable introduction to human anatomy.

I know nothing intimately of the matter myself, but I believe that anyone who has any acquaintance with comparative anatomy must find it possible to pursue much more rapidly and with much more sense of proportion the exacting study of human anatomy than one who comes to it entirely fresh.

It would be perfectly possible if it were desirable for a college to teach the subject of osteology, the study of the human skeleton, and I think a college might be justified in introducing a course in such a subject for the benefit of its prospective medical students.

To sum up: I do not see how a college can take up the subjects which are the supreme subjects of the medical course, namely, human anatomy and physiology. I think, as has been hinted, there could be selected not only from the first year, but from the first and second years of the medical course, subjects eminently suited to college instruction, which could be well taught in college and which would thoroughly justify the medical faculty in releasing a student who had pursued them from one year of his medical course. The colleges have no business to ask of the medical schools that they lower in the slightest degree for the benefit of their graduates the requirements for medical education. We have no right so far as I can see to make any special plea for college graduates. I think the college graduate will stand on his own feet, and that he will justify his taking the time that is necessary to pursue his college course; that, if he enters on his profession two or three years later, he will enter with a momentum that in the course of a comparatively few years must give him the lead in the race. This has been justified here in the testimony we have had concerning success in examinations for appointment as internes in the New York hospitals. I do believe, however, that we must seriously study every means of reducing the length of time essential to give a man that full equipment for the practice of medicine which comes from the combination of the college course and the medical course, and I hail with great joy this indication that we are seriously facing the question and are determined to find some way of cooperation by means of which

students who have taken a prescribed course in college can secure their medical degrees at the end of three years, sacrificing nothing whatever of the exacting requirements of the medical course, sacrificing nothing of the larger ideal of college subjects, but combining them so that efficiency will be preserved while economy is secured.

President A. V. V. Raymond—It seems to me that we have had sufficient discussion from the college point of view, and, inasmuch as it is growing late, and there are others to speak, I beg to be excused in order that we may have the benefit of listening to them.

Secretary Maurice J. Lewi—I desire to take up but a very few minutes of the time of this audience. As stated by Dr Raymond, to whose remarks I intended to listen very intently, the hour is getting late. I had purposed to compass within a very few minutes what I have to say, and will now endeavor to be still more brief.

It seems to me that this entire question can be settled best by the men who sit down and think out very seriously the various phases which present themselves. There is nothing theoretic about the views which have been advanced today. Dr Vander Veer's paper presented facts, and we have to deal with facts alone. It seems to me that the Medical Council which represents the medical colleges of the State of New York, together with an academic committee from the college departments of the universities of the State of New York, and possibly a member or two added from the State boards of medical examiners, might get together and very pleasantly adjust the law's intent in order to present a consensus of their opinion to the Regents. We must bear in mind in considering this question that the legislation is not mandatory, that the Regents have the right simply to admit to advanced standing in medicine men who have studied four years at a degree-granting academic school. It must be patent to all that the men who stay longest in college, all other things being equal, will in the battle of life come out best; but it is also patent to all that it is almost impossible for men to follow the academic career if in following that career they come (still as students) to a time of life when they ought to be breadwinners. With lessened foundation

they find themselves unfit to compete with those who have started out earlier, and the question is, How remedy the handicap?

We of the medical profession feel very proud of what has been accomplished in medicine in the State of New York. All over the country, in fact all over the world, we hear praises of the efforts that have been made by us in behalf of higher medical education, and we do not wish to abate one jot of what has been gained. Wise men both in the profession and out of the profession have said and clearly demonstrated to us that it is best, when a man has the means and the opportunity to study after leaving his high school or his preparatory school, to go on and take the degree of B. A. or B. S. But suppose that in any one of the four years of his course he finally determines on following a profession, will anything be lost to him in his educational substructure if in the second or third year he branches out from the main line, from the beaten track, and from his electives takes the studies best calculated to fit him for his life work? It may be impracticable in some colleges but it is possible in universities having professional departments so to arrange that a liberal arts student can follow the exact studies laid down in the first year of the medical curriculum, as shown by President Rhees; and we can come to some common agreement whereby the training of the men in these academic years can be pursued along medical lines without serious interference with academic education. I agree perfectly with Dr Vander Veer that the medical profession and the Regents office should look on this subject with a liberal spirit. We desire this law to be so carried into effect that no individual will suffer. It will be my personal desire to have this question submitted to the Regents by the State boards of medical examiners with the request that the law be interpreted liberally. Mr Parsons is a conservative man in all matters, and his general oversight of the subject will be assurance in itself that caution will be observed before hard and fast rules are adopted. Gradually we will find the needs of the situation and equally gradually they will be met. Let us not make a mistake. Let us follow the lines laid down by Dr Vander Veer and in a conservative manner carry into effect not only the letter of the

law but the spirit which animated it, and that spirit was a liberal spirit.

Professor Morris Loeb—There remains a point which has not as yet been touched on in this discussion, full as it has been in other respects—the reason for the complaint that the schedules of American medical schools are overcrowded, in spite of the fact that they have increased the length of their curriculum, doubled it in this State within the last 15 years. I seek the reason in the attempt to teach more adequately certain fundamental branches of the exact sciences, which were formerly merely skimmed over: let me specially mention chemistry and physics, because I am better qualified to speak of these. Of course, a knowledge of these sciences, as well as of biology, is an indispensable prerequisite for medical practice. But I, for one, am unable to see how a student, coming from the high school with a very fragmentary knowledge of either chemistry or physics (since they are alternatives on the Regents certificate), can properly digest the prescribed work in these subjects as set forth in the first year studies of medical schools—the chemistry including lectures and recitations on the whole field of inorganic and organic chemistry, as well as laboratory practice in qualitative analysis—and at the same time give due attention to the introductory medical subjects and above all to dissection! The overburdening of the medical student admitted directly from the high school is therefore to be ascribed less to an increased variety of subjects than to the continuous growth of the sciences themselves, and the growing demand which their study makes on the time of the beginner. Fifteen years ago, the usual drugs, which were carbon compounds, were obtained almost without exception directly from natural products: the medical student could be satisfied with a purely descriptive account of their chemical properties. Now we have the synthetic drugs, many times removed from natural sources, depending for their preparation on reactions of a most complicated character, related to one another through complex nuclei, as sharply differentiated as the elements themselves, and differing in their physiologic effect according to variations in chemical composition that can only be appreciated by a thorough knowledge of one of the most recondite chapters of organic chemistry. It is not so long ago

that no application of physics, beyond the mere laws of mechanics, was important to the physician, if we except the thermometer and the small faradic battery. Now the varied uses of electricity alone presuppose a sufficient knowledge of the intricate laws governing that form of energy, not to speak of the new therapeutic applications of heat, osmose, etc.

It is not for me to quarrel with the conditions, arising from high school preparation, which will confront the medical schools for years to come. But let me ask, from a college professor's standpoint, whether we are doing right in granting the bachelor's degree to a student at the end of his junior year of college work, pretending indeed to require an additional year, under the medical faculty, while we are perfectly aware that he will be obliged to pursue studies which are based on the degree of scientific preparation possessed by students just able to enter the freshman class of his college? I believe that New York University has done right in refusing to grant the degree of bachelor to those students who leave the college walls at the end of the third year, even if they enter its own medical department. We have refused to do this; but we have arranged matters in such a way, by cooperation of the medical and undergraduate faculties, that we offer a thoroughly graded seven years course, whereof the fourth year is spent under the medical faculty as far as professional studies, and under the college faculty as far as scientific studies are concerned. This has been accomplished by the very form of cooperation which the preceding speaker has suggested for the institutions here represented—by the careful consideration of all pertinent questions in a conference committee, consisting of a small number of delegates from either faculty. Neither side was obliged to make a serious concession, because both sides became perfectly satisfied that the course would be an adequate one from either aspect; the question resolve itself into that of establishing a convenient time schedule.

It seems to me that this experience of ours is useful in proving to you, that a practical plan is possible, whereby colleges which are not directly associated with a medical school in the same university, may nevertheless acceptably prepare their students for advanced standing in a medical course. President

Rhees has pointed out, in more eloquent fashion than I can, a great deal of what I had expected to say. In chemistry and physics specially, it is not only possible but highly advantageous, that the studies should be pursued not merely from the aspect of medical utility, but from that larger outlook on universal knowledge which is afforded by their connected presentation as a pure science. To illustrate, in a medical school the attitude of a student toward organic chemistry is something like this: the chemical formulas of antipyrine, antifebrine, sulphonal, quinine, morphine, etc. are necessary evils, to be memorized for examination purposes, with just as many intermediate products as may serve to aid in fixing them in the mind. Substances without known therapeutic value are ignored as largely as possible. But who can tell these medical students what will be the fashionable drug three years hence, and what formulas, acquired by rote, will belong to substances superseded by that time? Their knowledge is arid, unless grafted on the living stock of chemical science, whose knowledge can not be taught in paradigms. Furthermore, I venture to predict that, within the next 15 years, no one branch of chemistry will prove as valuable an aid to medical progress as that connecting link between chemistry, physics and biology, which is now termed physical chemistry, an expansion of the old-fashioned "chemical philosophy." That subject will never be properly taught in a medical school, since it presupposes a knowledge of both physics and chemistry and would therefore fall into the second or third year of the course, when time and attention could be ill spared for it.

This subject, as well as the other purely scientific branches of chemistry, physics, hygiene and biology, are regular topics in a college curriculum, and they can be advantageously pursued by the intending medical student in common with his classmates who are preparing themselves for other careers. Out of the courses virtually existing in all colleges, it is possible to establish a four year medical preparatory course, which ought to admit directly to the second year of a medical school.

In chemistry such a course ought to include one year of inorganic and one year of organic chemistry, by lectures or recitations, laboratory work in qualitative, but not necessarily quantitative, analysis. Urine analysis and toxicology are less advan-

tageously studied in college. In physics, we ought to prescribe a good year of theory, and a laboratory course, possibly with special stress on heat, light and electricity. Then, in the senior year, physical chemistry would sum up these two courses.

The biologic subjects taught in the college would include comparative anatomy, animal histology (not human histology), bacteriology, specially with reference to technic, and physiology and hygiene. These subjects, again, are taught in good colleges as branches of liberal education. Deficiencies in histologic material, or in bones, etc. for the illustration of comparative anatomy, could be easily remedied by correspondence with the medical college participating in the arrangement. Perhaps none of these subjects are treated in the same form, or quite as fully, as in medical schools, nor from exactly the same standpoint; but they are apt to be more thoroughly assimilated, and you will agree with me, that a man who is firmly grounded in the principles ought not to be confused by details, if called on to view the subject from another side.

Suppose now that a student presented himself at a medical college, with a bachelor's degree signifying the completion of a course including all the subjects just enumerated: he ought to be received as a second year student in full standing, with the exception of anatomy, in which he must be technically conditioned. It is, however, the opinion of our medical faculty, that he would be so far advanced in actual second year subjects, notably in the introductory portions of physiologic chemistry, that he might either be excused from attendance at the regular sessions of the class, for part of the year, or might be admitted to a special, briefer, course, designed for college graduates. Thus, and in other ways, he would have as much time at his disposal for the dissecting room and human anatomy, as is required for these subjects by first year students, and he would enjoy the advantage of having been previously fitted for this work by familiarity with comparative anatomy and other correlated subjects, which are taken perforce simultaneously with anatomy in the usual medical course; so that the first year student is deprived of the benefit of acquaintance with those chapters, which are taught toward the end of the year, long after he might have usefully applied them in his own dissections.

President J. M. Taylor—I hesitate to speak at this late hour and would not if I did not feel that some one ought to offer a word of protest on behalf of certain tendencies that seem to me definitely touched on in this discussion. It is not merely the question of medical education which is involved in this, it is a question of education in the law, in the ministry, in pedagogy. It is a definite proposition to use a very considerable portion of the time now devoted to liberal education for nothing less than technical education, and what has been claimed by the medical profession is certainly just as readily claimed, and has been already claimed in certain universities, for these other pursuits. It is generally granted by men acquainted with our colleges that the senior year is worth two other years in college so far as its liberalizing tendencies are concerned. I do not think there can be any question about it. I was very much impressed by the statement made a few moments ago by the gentleman from Cornell University in regard to the success in competition for places in the hospitals of those who had completed a full college course. I have to say that one who has just gained a position in one of the best hospitals in New York came to me a few years ago and asked my advice as to continuing his studies for another year or taking his senior year as the first year in the medical school. I advised him emphatically to continue, and he was not a man who could afford to wait. He had to make his own living in the world, but I counseled him strongly to stick to his college course and fill his mind with philosophy and English and history and matters that would make for his fuller intellectual equipment. There is no single one of the learned professions that has had the reputation of needing so much in that direction as the medical fraternity, as a whole. I confess I was in some doubt about my advice to the young man of whom I have spoken, considering what he had to do for himself. He has, however, taken four years in the College of Physicians and Surgeons and he is one of the few men who won those positions in New York. As a matter of liberal education, it is a mistake for the medical fraternity, it is a mistake for the ministers, it is a mistake for the lawyers, and it is a mistake for the teachers, to follow the suggestion of our colleges that they give up a considerable portion of their time

in the senior year to education along professional lines. Mr Chairman, I simply protest that, if we are to carry on what we have been working so hard for in this country for the last 25 years, namely, our plans for *liberal* education, we must arrest in our colleges and in the undergraduate years of our universities these tendencies and specific demands for technical and professional training. I believe there is a better solution. Why should not our colleges, instead of giving so much time to this effort to lower the standard of a liberal education (because it is not as liberalizing to study these specific professional subjects as the broader subjects that make for general knowledge) combine to lower the entrance requirements and take men or women into college at 16 or 17 years of age? That would be a solution of the question—and who wants these young men as physicians before they are 25 or 26 years of age? I do not want any man to practise on my “mind, body or estate” till he is somewhere in that neighborhood. I think perhaps we are wrong in just that point, that we are trying to crowd these young fellows into their professions a little too early; and, instead of lowering the demands that are made in the interests of a liberal education, we should say to the physician, to the minister, to the lawyer, You go on with your work, and the more education you get for yourself over and above the professional requirement, the better for you and the better for the community.

Tuesday evening, July 1

Regent T. Guilford Smith—*Ladies and gentlemen*: It devolves on me to preside this evening and to introduce Professor George E. Vincent of the University of Chicago. I need hardly say to you that Professor Vincent is no stranger in New York; in fact, no son of Bishop Vincent of Chautauqua is a stranger within our borders. I do not know of any man who has done so much to carry out real university extension, though under another name. While we herald Professor George Vincent as from Chicago, yet he is as much identified with Chautauqua as with Chicago; and it is a great pleasure that I have the opportunity of introducing him to you.

EDUCATION AND EFFICIENCY

BY PROFESSOR GEORGE E. VINCENT, UNIVERSITY OF CHICAGO

Members of the convocation, ladies and gentlemen: I have not forgotten that, when I was a small boy, my heart always went out with gratitude to the minister who at the beginning of his sermon outlined the heads of his discourse. Following this good example, let me preface what I have to say tonight with a brief table of contents. I want to lay stress on three things which seem to me most important in education—knowledge, wisdom, enthusiasm. Now I am perfectly aware that I shall use these terms in an extremely loose way, but I am sure that you will not find fault with me on this account. I might protect myself by all manner of explanatory clauses and parentheses which would simply take up time and trespass on your patience. When I was in college, President Porter, who was a most interesting instructor but had been brought up under the influence of Scottish philosophy, and therefore hesitated to make any statement without some reservation, found great refuge and comfort in the phrase, “what might be called,” and he really never made any emphatic statement without including this saving clause. I remember once that I listened attentively and kept count, and in the course of 20 minutes he used this phrase 26 times; and it has been told that at one time in college chapel he asked the Lord to forgive us “what might be called” our trespasses.

I am simply going to ask you, therefore, to let me use these terms—knowledge, wisdom, enthusiasm—in my own way and read into them the sort of meaning which I hope they may contain for you at the end.

At first thought the word efficiency brings with it the idea of bustling activity, or perhaps of strong, firm-handed mastery. One sees a pragmatic person, sure, swift, accomplishing. Visions of great factories, railways, banks, with captains of industry and Napoleons of finance, come sweeping through the mind. Pictures of great leaders, generals, admirals, statesmen, paint themselves in fancy. There is a certain strut about the word, efficiency. It seems to describe only strong men doing great things. Yet it carries a general idea, the ability to meet situa-

tions, to solve problems whatever they may be. Efficiency is problem-solving, adequacy. There is need of efficient persons in a world of problems. Daily life is a continuous series of situations to be dealt with, of problems to be solved. There are physical problems which require constant adjustment. Economic problems meet the individual at every turn. Business sagacity is a name we give to the ability which is equal to them. Social intercourse is ever bringing about problems of greater or less degree. The tactful person is he who is master of such situations. Choice of clothes, of pictures, of music raise esthetic questions. Taste is the term which, modified by sundry adjectives, describes success or failure here. The ceaseless onward push of truth, the growing complexity of our conceptions, the widening of our views of nature and man, create mental puzzles which must be solved under penalty of distraction, hopeless apathy or smug self-deceit. Rationality, intelligence are the agreeable words which betoken the ability to "see things whole." The realm of conduct is thick with problems which demand nice judgment and sound feeling. Conscience and character describe the factor which is tasked in solving well or ill the ethical questions which life is ever forcing on the individual. True, most of these problems have ceased to seem such because habit deals with them automatically. We bow, and smile and choose, and act without reflection. Routine problems lead to customary, habitual solutions, which nevertheless are records of past adjustment. Habits are the fossils of consciousness. The man who never meets new situations could get on comfortably with a slightly elaborated spinal cord. Few are unfortunate enough to reach this wretched equilibrium, this merely mechanic peace. The overwhelming majority of mankind are ceaselessly confronted by new situations. To them efficiency means power of adjustment; it means problem-solving. Efficiency in this general sense is more than doing things. It includes the patient suffering of the sick man and the splendid activity of the athlete; it describes the faithful service of the humble follower as well as the brilliant achievements of the conspicuous leader. Efficiency is the successful solving of life's problems whatever they may be.

Yet we must not deceive ourselves with words. Efficiency, like all our fixed labels for the infinite gradations of reality, is a relative term. It belongs to the vast category of the more or less. Again, efficiency may be special or general. A man may be effective in dealing with certain problems, and yet his efforts may be futile in the face of others. The ideal, then, is the greatest efficiency for the widest range of problems. But this does not mean that the effective individual is equally at home with all the special situations of life, rather that in the hierarchy of problems which go to make up the individual career, he is equal to the group of tasks which successively confront him.

There was once a theory that knowledge in itself is efficiency, that information is power. There used to be much talk of the erudition of the college graduate. His entrance into society was celebrated as in some sort the publication of a peripatetic encyclopedia. He was pictured as going into the world, ready to disseminate knowledge, fairly exuding facts. There have been college graduates who have themselves entertained this theory; a few unfortunates have not been able to rid their minds of this delusion. This quantitative estimate of education has had vogue with the great public, and common speech is full of phrases which make education synonymous with stores of information.

Mr Lowell was once asked how he accounted for the fact that such accumulations of knowledge were to be found in Cambridge. "Oh! that is simple enough," was his whimsical reply. "You see, the freshmen bring up such quantities of information, and the seniors take nothing away." We should all like to think this a somewhat overstatement of the facts, and yet we have to admit that the theory of profound erudition must be reluctantly abandoned.

Education must discriminate between the mere accumulation of unrelated facts, and the gradual mastery of organized knowledge. In these days of universal information, when each individual is expected to discourse glibly on every topic of human interest, educational institutions have an important function as dikes reared against the ceaseless ebb and flow, the wearisome welter of what we know as useful knowledge. The mind

of the student must be protected against this flood of unrelated fact, of gossip great and small which surges through the press and plashes feebly in social intercourse. School and college have a protecting and negative function as well as a positive duty to perform.

The organized groups of knowledge, the studies of the curriculum, can not include all the information which is abroad in these restless days. The studies are selective, they purposely isolate, they consciously group and connect and make significant great fundamental facts, with which the student learns gradually to interpret life. The history of the curriculum is the history of civilization. The things each generation prizes find their way into the educational system and then survive oftentimes the demand which originally gave them place. Today the pressure on the curriculum from the kindergarten to the university is significant of the aims and ideals of the present. The interest in the development of exact sciences has transformed the higher education within 50 years. Now the social sciences are industriously thrusting themselves into the high school and college. Industrial activity, commercial progress, create a clamor for technical training. The professions demand more profound scholarship, more thorough methods of instruction. These conditions create confusion and chaos. Older educational ideals are shaken and some of them shattered. The small band of Greek scholars shoulder to shoulder are fighting a second Thermopylae. At the same time the Romans seem to be pushing the Latin tongue over a wider empire. The natural sciences are sweeping things before them triumphantly and are entrenched in their laboratories in every part of the land. It was easy in the good old days of classical scholarship to create an ideal out of the relatively simple factors involved. Today it is hard to formulate the type of college man. The praisers of the past seem to fear that the polished, urbane, scholarly gentleman is to disappear, thrust out by the specialist absorbed in his minute labors, negligent of the humanities, contemptuous of culture, and worshipping research, or that he is to be displaced by the technical engineer. But we may well hope for some new type, which shall combine the dignity and refinement

of the older with the special knowledge and original power of the new.

Whatever the result, it remains certain that the greatest variety of subjects must make their way into university curriculums, and this must mean inevitably that specialization of which the older scholarship stands so much in dread. There must be inevitably some sacrifice in breadth of view in order that there may be compensation in depth of insight. Individuality must be given scope. The intellectual life of mankind is a divided labor. The vast sum of human knowledge makes such partition inevitable. The problem then is not to minimize specialization but to connect it with a general survey of nature and man and society. This readjustment is taking place rapidly. The relations of various pursuits are being more and more insisted on. The unity of nature, the coherence of all the social sciences, are ideas which neutralize the earlier theory of exact and detailed scholarship. Specialization today is in no small degree self-limiting, for the unity of all knowledge makes even on the specialist larger and larger demands for familiarity with related fields. The chief problem in the curriculum is that which relates to the humanities on the one side and the natural sciences on the other. Here there is a real break in continuity, too often a lack of insight, tolerance and sympathy. This is largely the survival of the old traditional feud between the invading scientist and the reluctantly yielding classicist. The scientific spirit has laid stress on objective reality. It has made parade of phenomena. It has too often forgotten the fact of which Stevenson reminds us, that "no man lives in the external truth among the acids and the salts, but in the warm phantasmagoric chamber of his brain, with the painted windows and the storied wall."

But the humanities will reassert themselves. Literature, language, art and philosophy have not lost their meaning for the human mind. A new synthesis of knowledge, a new arrangement of values is taking place. Thinking men can not long live in a fragmentary, chaotic world. There is no fear that the fields pursued will not be unified and related in a coherent picture of man's life and his destiny. Efficiency depends on such setting of the world in order. The distracted mind can not successfully meet the problems of life. A chaotic curriculum

can not confer clear vision, and college graduates will find adjustment far from easy so long as there is confusion of relations and of values in the fundamental knowledge they acquire. Yet, in spite of these inevitable difficulties, the ordered knowledge of the college graduate, contrasted with the vague, formless, general information of the one who has been played on by the unorganized suggestions of ordinary life, is a source of power, a condition of high efficiency.

But knowledge, however systemized and coherent, is not in itself power. There is another capacity, somewhat vaguely known as wisdom, that intangible sense of relationship and proportion, that reflective valuation of things which is the very essence of efficiency. "Knowledge comes but wisdom lingers", implies a noteworthy distinction. Without knowledge there can be no wisdom, but alas, there may be knowledge which never matures into wisdom. There was a cherished belief that in some sort the college education prepared its graduates for the tasks of life, that it sent them forth equipped for social service. The simplicity of this naïve belief has a certain charm. The theory was delightfully complete. Life was divided up into its elements, which are called studies. These studies were communicated to the student, who forthwith stalked into the world, ready to solve its problems with these talismans which he had mastered.

But certain experiences with the cold, unsympathetic and jeering world have seriously impaired this older belief. It is recognized that wisdom comes with doing, that there is no magic by which the power can be communicated. Education at best can suggest the habit of reflection and analysis which ultimately matures into wisdom. Natural science and the social sciences, by developing the scientific method and the scientific spirit, have done much to stimulate habits of reflection which are the beginning of wisdom. Nor may we overlook the service rendered by the older pursuits, the languages and mathematics, in fostering the power to discern and discriminate and decide.

Education, therefore, lays stress more than ever on this power of adjustment, this originality, this habit of meeting new situations, of solving new problems. The mere learning of phrases is a different thing from the command of a language. Routine

repetitions and useful conventionalities are of great service so long as conditions to which they are adjusted remain stable. If only this were a fixed world, a stereotyped life, education would be a simple matter. The turning out of smooth running automatons would meet the demands of the situation. But this is a shifting, changing world. Never perhaps in all history have there been times so unstable as these. Industry, commerce, thought, are ceaselessly modified. Individual success and social progress demand power of adjustment, wisdom. Educational institutions must bethink themselves, therefore, and inquire how far their training does lay stress on this essential faculty, this power of reasoning, this ability to see things as they are and to put things in their right relations of value and importance. Knowledge must be subordinated to wisdom, not valued for itself. Lord Bacon contrasted the philosophies of his time in that classic analogy of the ant, the spider and the bee. Some men, he said, had merely the power to accumulate, they heaped up facts and in that alone took satisfaction; others, apparently oblivious of phenomena, spun from their own fancy a fabric of speculation; while the new philosophy, the inductive method, emulated the bee, which gathers materials from many sources and distils them into the honey of wisdom. While it may be well for the sluggard to emulate the ant, the scholar should in these days avoid the mere accumulation of fact, and shun a priori speculation, seeking, rather, to transform his knowledge into a matured wisdom.

But now we must consider still another factor in efficiency. A man may have a wisely chosen store of knowledge, he may have carefully developed the intellectual ability to solve difficult problems, and yet he may lack efficiency because he lacks enthusiasm. Enthusiasm may be used roughly to describe the emotional motive force which carries mental images into action. It is not fanaticism, it is not sentimentality. It is energy, sentiment, will.

With some plausibility it has been charged that the higher education impairs the emotional motor activities. It is asserted that the higher critics lack spiritual energy. It is charged that the great reforms are not furthered primarily by the educated classes. Mr Emerson's characterization of the

Oxford gentleman's philosophy, "Nothing new, nothing true, and no matter", has been made to embrace a whole class of colleges and universities. Harvard has been charged with cultivating a studied indifference. The scholar in politics is derided as doctrinaire, apathetic, ineffective. Bagehot has satirized the influence of the higher education in this fashion, making a fictitious quotation from an organ of the university men: "All common persons are doing as well as they can, but it doesn't come to much after all. All statesmen are doing as ill as they can, and let us be thankful that does not come to much either. AB says he has done something, but he has not done it. CD has made a parade of demonstrating this or that proposition, but he does not prove his case. There is one mistake on page 5 and one on page 113. A great history has been written of this or that century, but the best authorities as to that period have not been consulted, which, however, is not very remarkable, as there is nothing in them".

There is a certain popular impression, then, that the higher education is not compatible with steady and growing enthusiasm for life in its varied aspects. The charge is vague and general and far from demonstration. If the converse of the proposition be true, the fact that we have enthusiastic college and university men would seem to be proof positive that our education has been faulty; for it must be admitted that there are graduates of colleges and universities who not only pursue their special interests with all the ardor of a Pasteur or an Asa Gray, but confront all the great interests of life with ~~hope~~ and courage and steady purpose. Yet in this charge against the higher learning there is a residuum of truth. Of course human nature is too complex to make the educational test conclusive. Temperament is a mystery to be reckoned with, a factor which disturbs the logic of the experimental method. There are men who remain optimists in spite of the university. There are others who seem cynics from the cradle, though they have never known the numbing influences of the higher education.

Arnold Toynbee, in a single sentence, has epitomized the significance of enthusiasm. "Apathy", he says, "can only be overcome by enthusiasm, and enthusiasm can only be aroused by two things—first, an ideal which takes the imagination by storm, and

second, a definite, intelligible plan for carrying that ideal out into action." Efficiency demands both these factors, the idealism and the definiteness of purpose in execution, and these two things are organically related. The definite plan kindles the enthusiasm, the enthusiasm stimulates to clearer definition of the meanings and methods. The danger which comes with increase of knowledge and even with growth in wisdom is the danger that conflicting images will prevent definiteness of decision and so paralyze the will. It is this transition from the certainties, the precise formulas, the well worn maxims, the orthodox routine of thought and feeling to the bewildering and new complexities of moral life, which is so searching a test of the student's character. This transition works itself out in several different types. It produces the opinionated student, whose omniscience overwhelms all with whom he associates. It produces the cynical student, who, weary of the world, pours his diluted vitriol over all the interests of life. It produces the despondent type, who feels the foundations of the universe tottering to their fall. It produces the apathetic student, who, turning from the baffling intellectual and ethical problems, gives himself up to the passing pleasures of life. It produces what I trust we may call the normal type, brave and hopeful and persistent, believing in the essential rightness of things and trusting that further thought will bring clearer vision.

There are cases of arrested development in all these groups, and these have given color to the theory that higher education means apathy or cynicism or despair. The problem is to push thinking farther, to have wisdom ripen, to bring order out of chaos, to reshape, reinterpret the philosophy of life till it fits the new facts and brings certainty about the fundamental verities.

We do not need the testimony of penologists to prove that intellectual power divorced from moral purpose produces dangerous criminals. There are facts enough to show that knowledge and wisdom without idealism, without enthusiasm are futile, that efficiency demands the active cooperation of all three of the factors we have discussed.

Yet perhaps we must admit the possibility of a certain division of labor between those who chiefly think and those who

chiefly act. In this busy, complex life possibly each individual can not develop equally all the different elements which make for real efficiency. And yet this must be true only within certain limits. Each one must lead his life and must solve his problems. Efficiency must be broad enough to include them all. Professional skill, economic success, are only partial tests. Capacity for happiness, for large and rich living, is essential if man is to be man and not mere mechanism. Education, then, if it is to serve our generation, must give heed to the images which fill the mind of its students. It must see to it that these images become more definite, more clear, that the outlines of a philosophy of life must emerge more distinctly, that life must seem worth living in no mere negative but in a positive sense. This steady enthusiasm can come only with such clarified vision.

The higher education, therefore, must at all times keep in mind three essential factors—organized knowledge, transformed into wisdom, which in turn must be energized by enthusiasm. For this great task education relies on science, philosophy, art and religion.

Science gathers facts, organizes knowledge, formulates laws. Philosophy unifies these into a theory of life. Art enriches and idealizes. Religion transforms into dynamic power. However we may conceive religion, its essential part in the life of man can not be denied. In these days, when theologic formulas are being revised or being translated into "the new language of the times," the thoughtless may imagine that religion is passing, but those who peer deeper see that the fundamental facts of religion, ideals of righteousness and fervent purpose to realize them were never more potent than today. Religion as the passion for perfection, seeking divine truth, and pressing ever toward loftier planes of individual and community life, is a permanent force in social evolution.

We rejoice in the conquests of science because they contribute to an ever truer philosophy of living, a more and more accurate view of what is, a lofty and inspiring vision of what may be. Philosophy—and with this I include theology—becomes increasingly a social philosophy. All knowledge is brought to bear on the common life of man, not only to produce

more goods but to give each one a more vivid image of himself as a member of society.

Nor can education neglect any one of these factors if it is to produce true efficiency. The absence of science means ignorance and fanaticism. The neglect of philosophy leads to mental anarchy. The decadence of art robs life of its noblest pleasures. The decline of religious fervor gives apathy and stagnation. It is the purpose of education to keep life whole, to give heed to all these forces which make men and women better able to solve the problems of existence, and most important of all, the problem of happiness, of brave, serene and joyous living.

We must expect that interest will shift from time to time from one factor to another. We have passed through a generation devoted to natural science and somewhat heedless of philosophy, but we note an increasing demand for a new conception of the world which shall include the scientific point of view with the essential truths of the humanists. And, more than that, we feel the strong undercurrent of hope and courage which is part of our national heritage. Our schools and colleges and universities, if they are to be the great organs of the national life, must make us feel vividly these potential forces of sentiment. There must be devotion to truth and diligent search for new knowledge. These new resources must be transformed into a truer and larger picture of the world, and this must be energized by idealism and emotion. Knowledge, wisdom, enthusiasm—these are the factors which make for efficiency. There is little danger perhaps that knowledge will be neglected. Philosophy may be safe, but in these days we do well to lay stress on the need for enthusiasm. Let us remember that till men make love by logic, till they cherish their children by calculation, till policy spells patriotism, sentiment will bind men together and inspire them to a nobler purpose.

Regent Smith—This is the last of the sessions of convocation; and, as you have all enjoyed more or less comfort during your stay here, I have been asked by the Regents of the University to express our thanks to the superintendent of public buildings, Mr Hill, who has taken every opportunity to assist us in making you as comfortable as possible. I now declare the convocation adjourned.

ATTENDANTS AT

40th University Convocation of the State of New York

Under names of institutions those not specially designated are teachers and instructors.

The name of a college in curves following the name of a person is that of the institution where he was educated.

Regents of the University

1 Martin I. Townsend (Williams) M.A. LL.D., 2 Charles E. Fitch (Williams) LL.B. M.A. L.H.D., 3 St Clair McKelway M.A. L.H.D. LL.D. D.C.L., 4 Daniel Beach (Alfred) Ph.D. LL.D., 5 Carroll E. Smith LL.D., 6 Pliny T. Sexton (Union) LL.D., 7 T. Gullford Smith (Rensselaer Polytechnic Inst.) M.A. C.E. LL.D., 8 Albert Vander Veer M.A. Ph.D. M.D., ^aCharles R. Skinner (Hamilton) M.A. LL.D. *state superintendent of public instruction, ex officio*, 9 Benjamin B. Odell jr (Bethany and Columbia) LL.D. *governor, ex officio*, 10 William Nottingham (Syracuse) M.A. Ph.D.

State Boards of Examiners

State Medical Society. 11 Maurice J. Lewi M.D. *secretary*.

University departments

Administrative Department. 12 James Russell Parsons jr (Trinity) M.A. LL.D. *secretary*; 13 Herbert J. Hamilton, *head clerk*; 14 Minnie L. Vanderzee, *head stenographer*; 15 Alice C. McCormack, *report clerk*; 16 Catharine Benjamin, *printing clerk*; 17 Mary Ellis (N. Y.) *indexer*; 18 Harrison Marvin, *janitor*; 19 Edward R. Evans, 20 Loretta G. Bowen, 21 Elizabeth Elsemann, *clerks*.

College and High School Departments. 22 Henry L. Taylor (Syracuse) M.A. Ph.D. *director's assistant*; 23 Annie T. Keyser (Cornell) *director's assistant*; 24 Everett O'Neill (Cornell) Ph.B., 25 Jane K. Weatherlow (Wellesley and Chicago) B.A., 26 Eugenia Radford (Chicago) B.A., 27 Alice H. Hall (N. Y. S. Normal Coll.), 28 Mindo G. Vulcheff (Princeton and New York Univ.) M.A. Ph.D., 29 George H. Quay (N. Y. S. Normal Coll.), 30 Horace L. Field (Cornell) B.A., 31 Lena M. Herbert (N. Y. S. Normal Coll.), 32 Clara Paquet, 33 Elizabeth Seeber, *examiners*; 34 Marcia Vander Veer, 35 Francis X. Thompson, 36 Helen Guardlineer, 37 Harriette E. Munsell, 38 Ella Hegeman Porter, *clerks*.

Inspection division. 39 Charles F. Wheelock (Cornell) B.S. *head inspector*; 40 Charles Newell Cobb (Syracuse) M.A., 41 Arthur G. Clement (Rochester) M.A., 42 Charles Davidson (Iowa and Yale) M.A. Ph.D., 43 Eugene W. Lyttle (Hamilton) M.A. Ph.D., 44 Edward S. Frisbee (Amherst) M.A. D.D., 45 I. O. Crissy, 46 J. H. Gibson, *inspectors*.

Home Education Department. 47 William R. Eastman (Yale and N. Y.) M.A. B.L.S. *library inspector*; 48 Salome Cutler Fairchild (Mt Holyoke and N. Y.) B.L.S. *vice director Library School*; 49 Mary E. Eastwood (Vassar) B.A. *assistant*.

^aSee Department of Public Instruction.

State Library. 50 Melvil Dewey (Amherst) M.A. LL.D. *director*; 51 Walter S. Biscoe (Amherst) M.A. *senior librarian*; 52 Stephen B. Griswold (Albany Law School) LL.B. *law librarian*; 53 Florence Woodworth (N. Y.) B.L.S. *director's assistant*; 54 Robert H. Whitten (Michigan and Columbia) Ph.D. *sociology librarian*; 55 Mary L. Sutliff (N. Y. S. Normal Coll. and N. Y.), 56 Elvira L. Bascom (Allegheny and N. Y.) B.A., 57 Jennie D. Fellows (N. Y.), 58 Sara Gardner Hyde (Mt Holyoke and N. Y.) *assistants*; 59 George Thurston Waterman, *shelf clerk*; 60 Oscar Frederick R. Treder (St Stephens) B.A., 61 Agnes E. Flinn, 62 Beulah L. Cross, *clerks*.

State Museum. 63 John M. Clarke (Amherst and Marburg) M.A. Ph.D. LL.D. *state paleontologist*; 64 Charles M. Walker (Massachusetts Agricultural Coll.) B.Sc. Ph.D., 65 Douglas B. Young, *assistants*; 66 Joseph Morje, *clerk and stenographer*.

INSTITUTIONS IN THE UNIVERSITY

Colleges for men

Colgate University, Hamilton. 67 Pres. George E. Merrill (Harvard) M.A. D.D. LL.D.; 68 Dean W. H. Crawshaw (Colgate) M.A.

College of St Francis Xavier, New York. 69 Vice Pres. William F. Clark (Woodstock, Md. and Louvain, Belgium) S.J.

Columbia University, New York. 70 Pres. Nicholas Murray Butler (Columbia, Berlin and Paris) M.A. Ph.D.; 71 Prof. William Hallock (Columbia and Würzburg, Bavaria) B.A. Ph.D.

Hamilton College, Clinton. 72 Prof. Oren Root (Hamilton) D.D. L.H.D.

Manhattan College, New York. 73 Bro. Jerome (Manhattan), *president*; 74 Bro. Arnold (Manhattan) B.S.

New York University. 75 Prof. Morris Loeb (Harvard and Berlin Univ., Germany) Ph.D.

Niagara University, Niagara Falls. 76 Prof. P. J. Conroy (Niagara) C.M.

St Francis College, Brooklyn. 77 Bro. Fidelis O.S.F. *rector*.

St John's College, Fordham. 78 Vice Pres. John O'Hara (Woodstock, Md.)

St Stephen's College, Annandale. 79 Warden Lawrence T. Cole (Michigan, Harvard and Columbia) B.D. Ph.D.

Union University, Schenectady. 80 Pres. Andrew V. V. Raymond (Union) D.D. LL.D.; 81 Lewis Boss (Dartmouth) LL.D.; 82 Prof. Frank S. Hoffman (Amherst and Heidelberg) Ph.D.; 83 Prof. Olin H. Landreth (Union) M.A. C.E.; 84 Prof. James H. Stoller (Union and Leipzig) Ph.D.; 85 Prof. William Wells (Union) Ph.D. LL.D.; 86 Prof. F. H. Wilkens (Johns Hopkins and Leipzig) B.A. Ph.D.

Colleges for women

Vassar College, Poughkeepsie. 87 Pres. James M. Taylor (Rochester) D.D. LL.D.

Colleges for men and women

Alfred University. 88 Pres. Boothe Colwell Davis (Alfred and Yale) Ph.D. D.D.; 89 Marie A. Berry (N. Y. S. Normal Coll.) Pd.B.

Cornell University, Ithaca. 90 Pres. Jacob Gould Schurman (Acadia, London, Edinburgh, etc.) M.A. D.Sc. LL.D.; 91 Charles De Garmo (Halle) Ph.D.; 92 Prof. Abram T. Kerr B.S. M.D. *secretary of the medical faculty*; 93 Prof. Helen May Knox (Cornell) B.A.

Keuka College. 94 Pres. George H. Ball (Grand River, Ohio) M.A. D.D.
University of Rochester. 95 Pres. Rush Rhees (Amherst) M.A. D.D. LL.D.

Schools of theology

St Bonaventure's College, Allegany. 96 Pres. Joseph Butler O.Y.M.
St John's College, theological department, Brooklyn. 97 Prof. Thomas F. Walsh (Rome) D.D. Ph.D.

Schools of education

New York State Normal College, Albany. 98 Pres. William J. Milne (Rochester) Ph.D. LL.D.; 99 Prof. Albert N. Husted (N. Y. S. Normal Coll.) M.A. Ph.D.; 100 Prof. William V. Jones (N. Y. S. Normal Coll.) Ph.D.; 101 Mary A. McClelland (N. Y. S. Normal Coll.); 102 Prof. Leonard W. Richardson (Trinity) M.A. LL.D.; 103 Kate Stoneman (N. Y. S. Normal Coll. and Albany Law School) LL.B.

Schools of medicine

Eclectic Medical College, New York. 104 Prof. George D. Heffter (College of the City of New York, Eclectic Medical Coll.) Ph.G. M.D.

Union University, Albany Medical College. 105 Willis G. Tucker (Albany Medical Coll.) M.D. *registrar*; 106 Prof. Frederick C. Curtis (Belvit) M.D.; 107 S. R. Morrow (Yale) M.A. M.D.

Schools of engineering and technology

Rensselaer Polytechnic Institute, Troy. 108 J. G. Murdoch (Princeton) M.A.

Other special schools

American School of Phrenology, New York. 109 M. H. Piercy *secretary*; 110 Charles W. Brandenburg (Eclectic Medical Coll.) M.D.

Conrad Poppenhusen Association, College Point. 111 Sup't William Harper (Albion and Munich) M.A.

Academies, high schools and academic departments

A. M. Chesbrough Seminary, North Chili. 112 Prin. Benson Howard Roberts (Rochester and Dartmouth) M.A.

Academy of the Holy Names, Albany. 113 Sister M. Patronilla, *directress*; 114 Sister M. Neil.

Afton High School. 115 Prin. James Baird (Amherst).

Akron High School. 116 Prin. A. T. Rinker (Rochester) Ph.B.

Albany High School. 117 Bryan O. Burgin (Union) B.E. M.S.; 118 W. D. Goewey; 119 Ellen Sullivan.

Albion High School. 120 Mary E. Steele, *preceptress*.

Alfred Academy. 121 Dora Kenyon (Alfred) Ph.B.

a See also Troy Academy.

Altamont Union School. 122 Prin. Arthur Z. Boothby (N. Y. S. Normal Coll.) Pd.B.

Andes High School. 123 Prin. Montgomery C. Smith (Syracuse) Ph.B.

Athens Union School. 124 Prin. George C. Lang (N. Y. S. Normal Coll.) Pd.B.

Auburn High School. 125 Prin. F. J. Bartlett (Yale) B.A.; 126 Warrington Somers (Dartmouth) M.A.

Babylon High School. 127 Prin. William H. Lisk (Oneonta Normal and Cornell).

Bainbridge High School. 128 Prin. Fred W. Crumb (Alfred) M.A.

Ballston Spa High School. 129 A. A. Lavery (Middlebury) M.A. *super-vising principal.*

Batavia High School. 130 Sup't and Prin. John Kennedy.

Bayshore High School. 131 Prin. Charles W. Mulford (Oneonta Normal).

Binghamton High School. 132 Sup't Darwin L. Bardwell (Amherst) M.A.; 133 Prin. J. Edward Banta (Amherst) M.A.

Brooklyn Boys High School. 134 Oliver D. Clark (Rochester, Johns Hopkins and Columbia) B.A.; 135 Fred Z. Lewis (Syracuse) M.A.

Buffalo high schools. 136 Sup't Henry P. Emerson (Rochester) M.A.

Cambridge High School. 137 Prin. Ernest E. Smith (Cortland Normal and Amherst) B.A.

Canajoharie High School. 138 Prin. Schuyler F. Herron (Syracuse) M.A.

Canandaigua Academy. 139 Sup't and Prin. J. Carlton Norris (Williams and Hamilton) M.A. Ph.D.; 140 Charles F. Blair (Vermont) B.A.

Canastota High School. 141 Prin. George H. Ottaway (Hamilton) M.A.

Castleton Union School. 142 Prin. Willard H. Waterbury (Cortland Normal).

Chatham High School. 143 Prin. Charles S. Williams (Cornell) B.A.; 144 Ella E. Wagar.

Cherry Valley High School. 145 Prin. Menzo Burlingame (Syracuse) Ph.B.; 146 Lora M. Clark (N. Y. S. Normal Coll.) Pd.B.

Christian Brothers Academy, Albany. 147 Bro. Maurice (Manhattan) *principal.*

Clinton High School. 148 Prin. Percy L. Wight (Hamilton) M.A.; 149 Frederick Montaser (University of Vienna) Ph.D. *first assistant.*

Coeymans High School. 150 Prin. Reuben A. Mable (Oneonta Normal).

Cook Academy, Montour Falls. 151 Emma L. Bush (Vassar) B.A.

Cooperstown High School. 152 Willard D. Johnson (N. Y. S. Normal Coll.) Ph.M.

Corning Free Academy. 153 Katherine Hulst (Syracuse) B.A.

Cornwall-on-Hudson High School. 154 Prin. Fred Carleton White (Alfred) M.A.

Cortland Union School. 155 Sup't and Prin. F. E. Smith (Hamilton) B.A.

Coxsackie High School. 156 Prin. George William Fairgrieve (Union) M.A.

Dansville High School. 157 Prin. Edward J. Bonner (Potsdam Normal) M.A.; 158 Mrs E. J. Bonner (Potsdam Normal).

- De La Salle Institute**, New York. 159 Bro. Agapas, *director*.
- De Witt Clinton High School**, New York. 160 John D. McDowell (Royal University of Ireland) M.A.; 161 Abram Fischlowitz (Coll. of the City of New York and Columbia) M.A. C.E.
- Dundee High School**. 162 Prin. D. B. Smith (Colgate) M.A.
- Dunkirk High School**. 163 Sup't E. E. Scribner (Oswego Normal and Cornell).
- Earlville High School**. 164 Prin. F. M. Markham (Fredonia Normal).
- East Rockaway Union School**. 165 Prin. Charles D. Vosburgh (Oneonta Normal).
- Eastern District High School**, Brooklyn. 166 Mary R. Fitzpatrick (Cornell) B.A.; 167 Anna L. Wagenschütz (Cornell) Ph.B.
- Eaton Union School**. 168 Prin. Roy B. Kelley (Oneonta Normal).
- Edmeston High School**. 169 Prin. Seth T. Gano (Oneonta Normal).
- Egberts High School**, Cohoes. 170 Sup't Edward Hayward (Union) Ph.D.; 171 Prin. William Carleton Tift (Rochester) M.A.
- Ellenville High School**. 172 Prin. John W. Chandler (U. S. N. Y.) Ph.D.
- Elmira Free Academy**. 173 Prin. Howard Conant (Union) M.A.
- Erasmus Hall High School**, Brooklyn. 174 Prin. Walter B. Gunnison (St Lawrence) B.A. Ph.D.
- Fabius High School**. 175 Prin. Walter S. Austin (Rochester) B.A.
- Fishkill Union School**. 176 Prin. Edward B. Du Mond (N. Y. S. Normal Coll.)
- Forestville Free Academy**. 177 Prin. A. C. Anderson (Fredonia Normal).
- Fort Ann Union School**. 178 Prin. Amelia Blasdel (Oswego Normal); 179 Grace T. Hammond (Mt Holyoke and N. Y. S. Normal Coll.) B.A. Pd.B.
- Fort Edward Collegiate Institute**. 180 Prin. Joseph E. King (Wesleyan) Ph.D. D.D.; 181 Irwin F. Mather (Iowa Coll. and Clark Univ.)
- Fort Edward High School**. 182 Prin. William S. Coleman (Mt Hope and N. Y. S. Normal Coll.) Ph.B.
- Galway Union School**. 183 Prin. Ivan T. Smith.
- Genesee Wesleyan Seminary**, Lima. 184 Minnie E. Ryer (N. Y. S. Normal Coll.)
- Glens Falls Academy**. 185 Prin. Daniel C. Farr (Williams) B.A. Ph.D.; 186 Prin. Albert Sewall Cox (Union) M.A.
- Gloversville High School**. 187 Sup't James A. Estee (Alfred) M.A.; 188 Prin. George J. McAndrew (Yale) M.A. Ph.D.; 189 Percy L. Bryant (Trinity) B.A.
- Goshen High School**. 190 Prin. Guy Halsey Baskerville (Syracuse) B.A.
- Granville High School**. 191 Prin. Raymond E. Brown (Alfred and N. Y. S. Normal Coll.) Ph.B. Pd.B.
- Griffith Institute and Union School**, Springville. 192 Mary M. Conway (Cortland Normal).
- Haldane High School**, Cold Spring. 193 Prin. Otis Montrose (N. Y. S. Normal Coll. and University of Munich).
- Hancock High School**. 194 Prin. C. V. Bookhout (N. Y. S. Normal Coll.) Pd.B.
- Haverling High School**, Bath. 195 Prin. Walter T. Palmer (Genesee Normal and Michigan) M.A.

Highland Falls Union School. 196 Prin. S. H. McIlroy (Geneseo Normal).

Holy Angels Academy, Buffalo. 197 Prin. T. W. Smith (Ottawa) O.M.I. M.A.

Holy Cross Academic School, Albany: 198 Sister Theobalda (Wilkesbarre (Pa.) Normal) *principal*; 199 Sister Zenobia (Wilkesbarre (Pa.) Normal); 200 Sister Climaca (Wilkesbarre (Pa.) Normal).

Hoosick Falls High School. 201 Sup't and Prin. H. Harvey Snell (Alfred) M.A. Ph.B.

Hornellsville High School. 202 Chris A. Hartnagel (Union and N. Y. S. Normal Coll.) B.S. Pd.B.

Hudson High School. 203 Sup't and Prin. Frank James Sagendorph (Rutgers) M.A.

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Ilion High School. 205 Sup't and Prin. A. W. Abrams (Cornell) Ph.B.; 206 Loretta O. Douglas (Cortland Normal) *preceptress*; 207 Etta C. Reynolds (Brockport Normal).

Ithaca High School. 208 Sup't and Prin. Frank D. Boynton (Middlebury) M.A.

Irvington High School. 209 Margaret M. Tewey (Normal Coll. of the City of New York) *first assistant*.

Johnstown High School. 210 Sup't Frank W. Jennings (Hamilton) Ph.D.

Keuka Institute, Keuka College. 211 Prin. Hadley B. Larrabee (Hillsdale) M.A.

Kingston Free Academy. 212 Prin. Myron J. Michael (Tufts) M.A.

Lansingburg High School. 213 Sup't George F. Sawyer (Amherst) B.A.; 214 Prin. James Ray Craighead (Williams) M.A.

La Salle Academy, New York. 215 Bro. Edward, *vice principal*.

La Salle Institute, Troy. 216 Bro. Aelred, *director*.

Le Roy High School. 217 Sup't and Prin. J. C. Benedict (Geneseo Normal, Mt Hope and Illinois Wesleyan) Ph.B.

Lestershire Union School. 218 Sup't E. T. Graves (Cortland Normal).

Little Falls High School. 219 Prin. C. H. Warfield (Hamilton) M.A.

Mamaroneck High School. 220 Prin. Samuel J. Preston (Middlebury) M.A.

Masten Park High School, Buffalo. 221 Prin. Frank S. Fosdick (Rochester) M.A.

Matteawan High School. 222 Prin. Gurdan R. Miller (Syracuse) Ph.B.

Mechanicville High School. 223 Margaret B. Ackart (N. Y. S. Normal Coll.)

Medina High School. 224 Sup't and Prin. T. H. Armstrong (Brockport Normal).

Mexico Academy and High School. 225 Prin. A. H. Norton (Syracuse) B.S.

Middleburg High School. 226 Prin. Silas C. Kimm (Allegheny and Hamilton) M.A.

Mineville High School. 227 Prin. Samuel D. McClellan (Plattsburg Normal).

Mumford Union School. 228 Prin. Eugene M. Lath (Brockport Normal).

Mynderse Academy, Seneca Falls. 229 Sup't C. Willard Rice (Hamilton) B.A.

New York State School for the Blind, Batavia. 230 Sup't and Prin. O. H. Burritt (Rochester) M.A.

Newburgh Free Academy. 231 Sup't James M. Crane (N. Y. S. Normal Coll. and New York Univ.) M.A. Pd.M.; 232 Prin. William H. Doty (N. Y. S. Normal Coll.) Pd.M.; 233 Dora M. Townsend (New York Univ.) Pd.M. *preceptress*.

Niagara Falls High School. 234 Prin. William B. Chriswell (Brockport Normal and Cornell) Ph.B.; 235 Prin. Thomas Bailey Lovell (Rochester) M.A. LL.D.

Ogdensburg Free Academy. 236 Prin. Fred Van Dusen (Union) M.A. Ph.D.

Oneida High School. 237 Prin. C. Ernest Brown (Harvard) B.A.

Oneonta High School. 238 Sup't W. C. Franklin (Rutgers and N. Y. S. Normal Coll.) M.A.; 239 Prin. Robert S. Roulston (St Lawrence) M.S.

Oswego High School. 240 Prin. Charles W. Richards (Oswego Normal); 241 John N. Vedder (Union) M.A.

Oxford Academy and Union School. 242 Prin. Robert K. Toaz (Rochester) B.A.

Penn Yan Academy. 243 Sup't J. M. Thompson (Colgate) Ph.B.

Phoenix High School. 244 Prin. J. Schuyler Fox (Brown) B.A.

Port Henry High School. 245 Prin. P. F. Burke (Middlebury) M.A.

Poughkeepsie High School. 246 Sup't W. A. Smith (Williams); 247 Prin. Clarence H. Woolsey (Cortland Normal, Harvard, New York Univ. law dept and Washington) M.A. LL.B. Ph.D.; 248 J. D. Edwards (Union and N. Y. S. Normal Coll.) B.A. Pd.B.

Pulaski Academy and Union School. 249 Prin. Charles N. Bean (Cornell) B.L.

Ravena Union School. 250 Prin. Benjamin I. Morey (Cortland Normal).

Rensselaer High School. 251 Sup't W. H. Good (Central Univ. and N. Y. S. Normal Coll.) M.A. Ph.B.; 252 Prin. Louis F. Robins; 253 Gertrude E. Hall (Cornell and N. Y. S. Normal Coll.) B.A. Pd.B.

Richmond Hill High School. 254 Leland L. Landers (Cornell) B.A.

Rochester High School. 255 Prin. Albert H. Wilcox (Rochester and Chicago) M.A.

Rushville Union School. 256 Prin. Charles James Smith (Genesee Normal).

Sag Harbor High School. 257 W. L. Shubert (N. Y. S. Normal Coll.)

St John's Academy of Rensselaer. 258 Prin. John F. Glavin (St Charles Coll.) M.A.; 259 Sister M. Ambrosia.

St Joseph's Academy, Albany. 260 Bro. William.

St Joseph's Academy, Troy. 261 Prin. J. T. Slattery (Manhattan) M.A.; 262 Sister Frances Joseph; 263 Sister Emma Teresa.

St Patrick's Academy of Troy. 264 Sister M. Blanche, *principal*; 265 Sister M. Lucilla.

St Peter's Academy, Rome. 266 Sister Mary Patrick, *principal*; 267 Sister M. Augusta; 268 Sister Magdalen of the Sacred Heart.

St Peter's Academy, Troy. 269 Sister Mary Odilla Bogan, *principal*; 270 Sister St John, *assistant*; 271 Sister Teresa Agnes.

- Sandy Hill High School.** 272 Prin. Frances A. Tefft.
- Saratoga Springs High School.** 273 Sup't Thomas R. Knell (Wesleyan) M.A.
- Saugerties High School.** 274 Prin. Fred N. Moulton (Union).
- Savannah High School.** 275 Prin. Ernest G. Merritt (Cornell) B.S.
- Schenectady Union Classical Institute.** 276 Prin. Arthur Marvin (Yale) M.A.
- Shortsville High School.** 277 Prin. J. Finton Bullock (Colgate) B.S.
- Sodus Union School.** 278 Prin. Ellisha Curtiss (Union) M.A.
- Solvay High School.** 279 Prin. C. O. Richards.
- South Glens Falls High School.** 280 Prin. Walter J. Greene (N. Y. S. Normal Coll.) Pd.B.
- South New Berlin Union School.** 281 Prin. Jay D. Lester (Syracuse) B.A.
- Southampton High School.** 282 Jennie Shannon (N. Y. S. Normal Coll.)
- Stamford Seminary and Union School.** 283 Prin. Charles R. Clark (Hamilton) B.A.
- Ticonderoga High School.** 284 Prin. Fred V. Lester (Colgate) M.A.
- Troy Academy.** Prin. J. G. Murdoch.
- Troy High School.** 285 Prin. M. H. Walrath (Syracuse) M.A.; 286 Vice Prin. Hugh H. Lansing (Williams) B.A.; 287 H. L. F. Morse (Harvard) B.A.; 288 George W. Kennedy (Syracuse) M.A.
- Turner Union School.** 289 Prin. E. Everett Cortright (Allegheny).
- Unadilla High School.** 290 Prin. A. E. Barnes (Union) M.A.; 291 Josephine E. Graham (Oneonta Normal).
- Union Union School.** 292 Prin. J. L. Lusk (Cortland Normal).
- Valatie High School.** 293 Prin. Winthrop L. Millias (Colgate).
- Valley Falls Union School.** 294 Edwin Buchanan, *president of the board of education*; 295 Prin. Randolph F. Clark (Williams and N. Y. S. Normal Coll.) B.A. Pd.B.
- Walden High School.** 296 Prin. Lincoln R. Long.
- Wappingers Falls Union School.** 297 Prin. Samuel Mansfield (Union) M.A.
- Waterford High School.** 298 Sup't Alexander Falconer.
- Waterloo High School.** 299 Huse T. Skerritt (Oswego Normal and Taylor Univ.) M.A. *supervising principal*.
- Watervliet High School.** 300 Sup't J. Edman Massee (Hamilton) M.A.; 301 Prin. James E. Ayers (Hamilton) M.A.; 302 Grace H. Cook (Mt Holyoke and N. Y. S. Normal Coll.) Pd.B.
- Waverly High School.** 303 Prin. Harry J. Walter (Cornell) Ph.M.
- Wellsville High School.** 304 Prin. Samuel J. Slawson (N. Y. S. Normal Coll.)
- West Hebron Union School.** 305 Prin. George E. Baldwin.
- West Winfield High School.** 306 Prin. George L. Bennett (Colgate) B.A.
- White Plains High School.** 307 Sup't W. A. McConnell (N. Y. S. Normal Coll.)
- Whitehall High School.** 308 Sup't W. W. Howe.
- Windsor High School.** 309 Prin. Andrew J. MacElroy (Cornell) B.S.

OUTSIDE THE UNIVERSITY

Department of Public Instruction

310 aSup't Charles R. Skinner (Hamilton) M.A. LL.D.; 311 A. M. Wright (Hamilton) *second deputy superintendent*; 312 Sarah A. Colliers (N. Y. S. Normal Coll.) Pd.B. *special institute instructor in English*; 313 Irving B. Smith (Hillsdale Coll.) M.A. *institute conductor*; 314 Frank H. Wood (Syracuse) M.A. *supervisor of training classes*; 315 John C. Bliss (Cornell) B.A.; 316 W. D. Graves (N. Y. S. Normal Coll.) Ph.B.; 317 Albert C. Hill (Colgate) M.A. Ph.D. *inspectors of training classes*; 318 Thomas E. Finegan (N. Y. S. Normal Coll.) M.A. *supervisor of examinations*; 319 L. O. Wiswell, *librarian*; 320 Mrs Honoré Greene, *stenographer*.

Universities and colleges

Agricultural College of Utah, Logan U. 321 Director Durward Earle Burchell.

American College, Concepcion, Chile. 322 John Lewis Reeder (Ohio Wesleyan and Boston Univ. School of Theology) M.A. S.T.B.; 323 Marian M. Reeder (N. Y. S. Normal Coll.)

Mackenzie College, Sao Paulo, Brazil. 324 Horace M. Lane (Univ. of Missouri) M.D. LL.D.

University of Chicago. 325 Prof. George E. Vincent (Yale and Chicago) Ph.D.

Williams College, Williamstown, Mass. 326 David T. Clark (Harvard) M.A.

Woodstock College, Woodstock Md. 327 Prof. Timothy Brosnahan.

Normal schools

Brockport. 328 Prin. C. T. McFarlane (Coll. of the City of New York, Vienna and Harvard) Ph.B. Pd.M.

Kindergarten Training School, Syracuse. 329 Maude C. Stewart (N. Y. S. Normal Coll.) *director*.

New Paltz. 330 Lewis M. Crane (Wesleyan) Ph.B. *principal of model school*; 331 Ella A. Fallon (Geneseo Normal and N. Y. S. Normal Coll.) *assistant principal of model school*; 332 Jeanette E. Graham (N. Y. S. Normal Coll.) Pd.B.; 333 Margaret K. Smith (Oswego Normal and Zürich, Switzerland) Ph.D.; 334 William F. White (Colgate) M.A. B.D.

New York Training School for Teachers. 335 Prin. Augustus S. Downing (Pennsylvania Coll.) M.A.; 336 Welland Hendrick (Colgate) M.A. *first assistant*; 337 E. N. Jones (Hamilton) B.A.

Oneonta. 338 Arthur M. Curtis (Cornell) B.S.

Oswego. 339 Amos W. Farnham.

Potsdam. 340 Prin. T. B. Stowell (Syracuse) M.A. Ph.D.

St Louis. 341 George Platt Knox (Cornell) B.S.

Trenton (N. J.) 342 W. B. Secor (Cornell) B.S.

Westfield (Mass.) 343 Prof. Will S. Monroe (Stanford) B.A.

a See also Regents of the University.

Academies, high schools and academic departments

Boardman High School, New Haven, Ct. 344 Arthur R. Bauder (Case School of Applied Science and Columbia) B.S. M.A.

Carrollton (Mo.) High School. 345 Mrs Anna Ray Root, *principal*.

Keble School, Syracuse N. Y. 346 Mary Lillias Richardson (Smith) B.A.

Kings Mountain Military Academy, Yorkville S. C. 347 W. S. Schneider (N. Y. S. Normal Coll.) Pd.B.

Mountain House School, Port Jervis N. Y. 348 Prin. Charles Mills Siocum (Williams and N. Y. S. Normal Coll.) B.A. Pd.B.

Newton (N. J.) High School. 349 Prin. Charles J. Majory (N. Y. S. Normal Coll. and New York Univ. School of Pedagogy) Pd.D.

St Cecilia's Academy, Scranton Pa. 350 Sister M. Xavier.

St Joseph's Academy, New York. 351 S. Hanfield (Benson) M.S.

Veltin School, New York. 352 Helen K. Hoy (Vassar) B.A.

Waterville Academy. 353 Ella M. Winchell; 354 Kate A. Winchell.

Elementary schools

Albany grammar schools. 355 Prin. Thomas S. O'Brien; 356 Prin. Jennie A. Utter (N. Y. S. Normal Coll.); 357 Katharine A. Cullen (N. Y. S. Normal Coll.); 358 Anna M. Downs; 359 Grace G. Parsons.

Atlantic City (N. J.) grammar school. 360 Martha Allen Fitch.

Buffalo grammar schools. 361 Prin. Delmer E. Batcheller (Fredonia Normal); 362 Prin. George L. Hanloy (Fredonia Normal).

Chatham public school. 363 H. Howard Noyes (Harvard).

Cohoes Kindergarten Training School. 364 Prin. Frances M. Crawford (N. Y. S. Normal Coll.).

Elmira grammar schools. 365 Prin. W. H. Benedict (Hamilton) M.A.

Greater New York public schools. 366 Helen Goldstrom (Normal Coll. of the City of New York) B.A., 367 V. E. Kilpatrick (Syracuse) M.A., 368 John T. Nicholson, 369 Emma A. Raeder (Normal Coll. of the City of New York), 370 George S. Rosecrants (N. Y. S. Normal Coll.) Pd.B., borough of Manhattan; 371 Harriet G. Waring (Geneseo Normal and Cornell) borough of Queens; 372 Paul Howard Galvin (Oswego Normal), 373 Prin. Samuel McK. Smith (Cornell) Ph B., borough of Richmond.

Hudson grammar school. 374 Dora D. Merwin.

Ilion. 375 Anna S. Stiles, *training class instructor*.

Jennie Clarkson Home for Children, Katonah. 376 Mabel B. Hall (Mt Holyoke and N. Y. S. Normal Coll.) B.A.

Kingston public school. 377 Janet King (N. Y. S. Normal Coll.).

Little Falls grammar school. 378 Prin. Francis J. Flagg (Fredonia Normal).

Monsey public school. 379 Prin. H. C. Fletcher (Brookport Normal and Oberlin).

New Hamburg public school. 380 Prin. Richard E. Coon (N. Y. S. Normal Coll.).

Newburg grammar school. 381 Prin. Charles E. Snyder (N. Y. S. Normal Coll. and Albany Law School) LL.B.; 382 Sara K. Bannon (N. Y. S. Normal Coll.).

- North Germantown Union Free School.** 383 Roscoe C. Craft.
Passaic (N. J.) public schools. 384 Sup't F. E. Spaulding (Amherst and Leipsic) Ph.D.
Rensselaer public school. 385 Prin. R. W. Wickham (N. Y. S. Normal Coll.).
Ridge Street School, Glens Falls. 386 Prin. Cora M. Littlefield (N. Y. S. Normal Coll.).
Roselle (N. J.) public schools. 387 Sup't George S. Ellis (Brown) Ph.B.
St Patrick's School, Watervliet. 388 Sister M. Anastasia; 389 Sister M. Joseph.
Slingerlands public school. 390 A. M. Bussing.
Tompkinsville public schools. 391 Jane Gillespie (N. Y. S. Normal Coll.) Pd.B.
Troy public schools. 392 Prin. Margaret P. Richardson.
Turners Falls (Mass.) public schools. 393 Anna O. Batson, *supervisor of primaries*.
Uniondale Union Free School. 394 Charles E. Snyder (Oneonta Normal).
Watervliet grammar schools. 395 Ellen N. Le Maire.

School commissioners

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 425 C. O. Ellsworth, Ellsworth Co., New York
 426 Jesse A. Ellsworth (Middlebury Coll.) M.A., Macmillan Co., New York
 427 Mrs Henry P. Emerson, Buffalo
 428 E. M. Fairchild (Oberlin and Andover) B.A. B.D. *lecturer*, Educational Church Board, Albany
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 430 Daniel S. Flinn, Albany
 431 Grace Foster, Albany
 432 William E. Freeman (Columbia and N. Y. S. Normal Coll.) B.S.
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University of the State of New York

Object. The object of the University as defined by law is to encourage and promote education in advance of the common elementary branches. Its field includes not only the work of secondary schools, colleges, universities, professional and technical schools, but also educational work connected with libraries, museums, study clubs, extension courses and similar agencies.

The University is a supervisory and administrative, not a teaching institution. It is a State department and at the same time a federation of more than 1000 institutions of higher and secondary education.

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The elective officers are a Chancellor and a Vice Chancellor, who serve without salary, and a Secretary. The Secretary is the executive and financial officer, is under official bonds for \$10,000, is responsible for the safekeeping and proper use of the University seal and of the books, records and other property in charge of the Regents, and for the proper administration and discipline of its various offices and departments.

Powers and duties. Besides many other important powers and duties, the Regents have power to incorporate, and to alter or revoke the charters of universities, colleges, academies, libraries, museums, or other educational institutions; to distribute to them funds granted by the State for their use; to inspect their workings and require annual reports under oath of their presiding officers; to establish examinations as to attainments in learning and confer on successful candidates suitable certificates, diplomas and degrees, and to confer honorary degrees.

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University of the State of New York

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With years of election

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1903	JOHN F. O'BRIEN						<i>Secretary of State, ex officio</i>
1903	CHARLES A. GARDINER	LL.B. M.A. Ph.D. LL.D.					New York
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Elected by Regents

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Regents Bulletin

No. 61

41ST UNIVERSITY CONVOCATION

OF THE

STATE OF NEW YORK, JUNE 29-30, 1903

SUMMARY OF SESSIONS

1st session, Monday, June 29, 8 p. m.

Convocation called to order by Chancellor WILLIAM CROSWELL
DOANE

Prayer by the Chancellor

Chancellor's annual address

A Constitutional and Educational Solution of the Negro Problem
Regent CHARLES A. GARDINER

2d session, Tuesday morning, June 30, 9.30 a. m.

The Promise and Potency of Educational Unity in the United
States

Pres. GEORGE E. MACLEAN, State University of Iowa

Formal discussion

Prof. ALBERT PERRY BRIGHAM, Colgate University

Prof. EDWARD EVERETT HALE JR, Union University

General discussion

Prin. T. H. ARMSTRONG, Medina High School

Dean LAURA D. GILL, Barnard College

Prof. JAMES E. LOUGH, New York University, School of
Pedagogy

The Department of Hygiene in Public Schools

Dr HELEN C. PUTNAM, Providence R. I.

Formal discussion

Dr JAMES J. WALSH, of editorial staff of *Medical News*, New York and lecturer at New York Polyclinic Medical School and Hospital

General discussion

Prof. DUNCAN C. LEE, Cornell University

Dr CHARLES MCINTIRE, Lafayette College, Easton Pa.

Regent ALBERT VANDER VEER

Resolution declaring that the supervision of education in New York State should be exercised by a single department, free from party influence

Sup't F. J. SAGENDORPH, Hudson High School

Remarks

Prof. DUNCAN C. LEE, Cornell University

Resolution adopted

Statement regarding an educational exhibit at the Louisiana Purchase Exposition

Prin. MYRON T. SCUDDER, New Paltz Normal School

Statement in behalf of the Louisiana Purchase Exposition commission

Director DE LANCEY M. ELLIS, Rochester

Necrology

CHARLES W. BARDEEN, editor *School Bulletin*, Syracuse

3d session, Tuesday afternoon, June 30, 3.05 p. m.

What the West Says

Headmaster HENRY WHITE CALLAHAN, State Preparatory School, Boulder Col.

Formal discussion

Pres. ANDREW S. DRAPER, University of Illinois

General discussion

Prin. FRED CARLTON WHITE, Cornwall-on-Hudson High School

The School as a Social Center

OSSIAN H. LANG, editor *Educational Foundations and the School Journal*, New York

Formal discussion

Prin. MYRON T. SCUDDER, New Paltz Normal School

4th session, Tuesday, June 30, 8.15 p. m.

Education and the Social Trend

Pres. HENRY HOPKINS, Williams College

Closing remarks

Chancellor WILLIAM CROSWELL DOANE

Adjourned

APPOINTMENTS

Convocation council. By appointment of Prof. George P. Bristol to succeed Prin. Thomas O. Baker, the council for 1904 is:

- 1904 Prin. Floyd J. Bartlett, Auburn High School
- 1905 Prin. Myron T. Scudder, New Paltz Normal School
- 1906 Dean James E. Russell, Teachers College, Columbia University, New York
- 1907 Sup't Darwin L. Bardwell, Borough of Richmond
- 1908 Prof. George P. Bristol, Cornell University

College council. By appointment of Chancellor James R. Day to succeed Pres. Nicholas Murray Butler, the council for 1904 is:

- 1904 Pres. A. Cameron MacKenzie, Elmira College
- 1905 Pres. George E. Merrill, Colgate University
- 1906 Pres. Rush Rhees, University of Rochester
- 1907 Pres. Almon Gunnison, St Lawrence University
- 1908 Chanc. James R. Day, Syracuse University

Academic council. By appointment of Prin. W. B. Gunnison to succeed Prin. O. D. Robinson, the council for 1904 is:

- 1904 Prin. John F. Glavin, St John's Academy, Rensselaer
- 1905 Prin. George A. Brown, Riverhead High School
- 1906 Prin. C. H. Warfield, Little Falls High School
- 1907 Prin. Frank S. Fosdick, Masten Park High School, Buffalo
- 1908 Prin. W. B. Gunnison, Erasmus Hall High School, Brooklyn

Library council. By appointment of Arthur E. Bostwick to succeed John E. Brandegee, the council for 1904 is:

- 1904 M. Emogene Hazeltine, librarian James Prendergast Library Association, Jamestown
- 1905 James H. Canfield, librarian Columbia University
- 1906 H. L. Elmendorf, superintendent Buffalo Public Library
- 1907 Frank P. Hill, librarian Brooklyn Public Library

1908 Arthur E. Bostwick, librarian New York Public Library

Medical council. The Medical Council appointed for 1904 is:

1904 Willis G. Tucker Ph.D. M.D. Albany Medical College

1905 Dean M. Belle Brown M. D., New York Medical College
and Hospital for Women

1906 William Gilman Thompson M. D., Cornell University
Medical College, New York

1907 Dean George W. Boskowitz M. D., Eclectic Medical College,
New York

1908 Dean James W. McLane, College of Physicians and Sur-
geons, Columbia University

Dental council. The dental council for 1904 is:

Faneuil D. Weisse M. D.

Charles Milton Ford M.A. M.D.

William C. Barrett M.D. M.D.S. D.D.S.

Veterinary council. The veterinary council for 1904 is:

James Law F.R.C.V.S.

Alexander F. Liantard M.D. V.M.

ADDRESSES, PAPERS AND DISCUSSIONS

Monday evening, June 29

OPENING PRAYER

BY CHANCELLOR WILLIAM CROSWELL DOANE

O God, who art the author of all wisdom and counsel, the fountain of light and the source of all truth, bless, we beseech Thee, Thy servants gathered here to advance and promote sound wisdom, and the knowledge of the truth, that men may come more and more to know and honor Thee. Grant the presence among us of Thy Holy Spirit to lead us into all truth. Save us from error and ignorance, from passion and prejudice, and from every evil thing. Only in Thy light can we see light, only by Thy grace can we be strong to serve Thee right. Send down Thy light and shed on us Thy grace, that in all the counsels that are taken here we may advance Thy glory and the good of man. And keep us ever mindful of the account that they must give who are set in the high place of teachers, so that alike by word and good example they may train those who are intrusted to their care

to be good citizens of our country and loyal servants to Thee. Prosper Thou the work of our hands upon us. Bless all the schools in this land and make Thy children wise unto salvation, through Jesus Christ, our Lord. Amen.

ANNUAL ADDRESS

BY CHANCELLOR WILLIAM CROSWELL DOANE D.D. LL.D.

It is my pleasure and privilege, in the name and behalf of the University of the State of New York, to make welcome to this gathering the members of the University Convocation. Once before, standing in the place of the absent Chancellor, I tried to discharge this duty, and now, as called to fill the place made vacant by his death, I bid you, gentlemen and ladies, *most* welcome. If the Regents have become by this time accustomed to the new Chancellor by reason of his often presiding in Dr Upson's absence, the new Chancellor is not yet accustomed to the fact, or the loss, of the old Chancellor's death. I feel still as if he must be only just away for tonight, and I only here *in loco cancellarii*; but alas, the fact that he has gone has forced itself on our consciousness, and found expression in so many tributes to his honored memory, that it is needless and unsuitable that I should add to them tonight.

I have felt always that the presidency of the University Convocation is the position in which the Chancellor discharges his most dignified duty, and I believe also that this annual gathering is the best general object lesson to the world at large of the duties and dignities of the University itself. Strange as it may seem after a century and a quarter of its existence, the University still seems to need some explanation, some *raison d'être* to the world at large. I am quite free to say that in my own judgment this necessity arises not from indistinctness and indefiniteness in the position of the University, but from a misunderstanding growing out of the modern misuse of words. The conception of a university today confines itself, in the mind of most people, to an institution of learning with its various faculties grouped in one place, and giving instruction in its various departments to pupils gathered in that place through resident instructors. This is an accepted, but not an exclusive or exhaustive use of the word. As long ago as the 12th century, and as far away as

Paris and Bologna, these universities cared for students "gathered in different colleges, hostels and pedagogies"; and it is, I think, quite fair to say that, apart from the derivative meaning of the word, its earliest use was not confined to, even if it was connected with buildings and appliances for instruction centered in one spot. The best definition of a university is, "An association of men for the purposes of study, which confers degrees which are acknowledged as valid throughout Christendom, is endowed and is privileged by the state, in order that the people may receive intellectual guidance, and that the theoretical problems which present themselves in the development of civilization may be resolved."

There could hardly be a clearer, more condensed, more comprehensive description of the aims and objects and the efforts of the University of the State of New York. You will remember that the humblest of the Apostles, who counted himself "not meet to be called an Apostle," magnified his office and so minimized himself; and it is with no assumption of personal dignity for myself or for my fellow Regents that I stand here to claim this as their own estimate of their duties as the governing body of this institution, venerable in its age and in its history. Tonight and here we recognize that the most modern and the most material conception of a university has its full realization. Is it buildings? Then we point with pride to the high schools and academies, the colleges, universities, professional and technical schools scattered throughout this State. Is it apparatus? Then we recall the furnishings complete and thorough which come to so many of them in large part from the University. Is it libraries? Our own unrivaled collection of books (crying with a voice which ought to be irresistible for better housing), the constant increase of volumes in the libraries of the various institutions of the University, and the practical usefulness of our system of traveling libraries more than make good this point. Is it pupils? Surely, the thousands of boys and girls, young men and young women, prepared for and passing our Regents examinations, answer the most exorbitant demands. Is it scientific research? New York through the University of the State stands preeminent in the character and reputation of its attained results. Is it instructors? You who are here tonight, many of you carrying on

with untiring devotion, and carrying out with acknowledged and proved ability, the intellectual guidance of the pupils, "you are our letters of commendation," "you are our glory and our joy." And I may not fail to add that it is the intention and desire of the University of the State of New York to include the largest possible number of qualified pupils in the arrangement for the distribution of the money allotted by the Legislature for non-resident tuition fees.

Gentlemen and ladies, members of the University Convocation, and you our honored guests, the University extends to you its cordial welcome and warmest hospitality. In a sense, there is an inconsistency, almost an inversion in the relation between you and us, because the feast is to be furnished by the guests, and we, the hosts, are to be the partakers of it. I earnestly hope and pray that whatever may contribute to the power of satisfying each of us who are hungering and thirsting for constant advance in knowledge, and in the power of its communication, may maintain, during the session of the convocation, the twin objects of the University, "the intellectual guidance" of the people and the solution of "the theoretical problems which present themselves in the development of civilization." And for myself, rejoicing in the fact that a large part of my ministry is the prophetic or teaching office, I am more than content to sit at the feet of those who have no other aim or purpose in their lives, than to discharge this high and holy function.

A CONSTITUTIONAL AND EDUCATIONAL SOLUTION OF THE NEGRO PROBLEM

BY REGENT CHARLES A. GARDINER

Mr Chancellor, Ladies and Gentlemen: The supreme glory of this republic is its constitutional government. For more than a century a constantly increasing and mighty people have created their own constitutions, and governed themselves by their own laws. The fact stands unchallenged that liberty and law and morality and all other great forces of right have prevailed in the conflicts of this republic and have been embodied ultimately in the fundamental laws of the land. Let this be our consolation for the past and inspiration for the future. Never before in our history, nor in the history of the world, have there existed such perfect or-

ganic laws as our present state and national constitutions. Never have human institutions made liberty more sacred or human rights more secure. If anywhere in this republic an American citizen is denied his rights, it is not by reason of our constitutions, but in defiance of them. I maintain their sovereign efficiency. They are omnipotent to protect every right of every citizen in our bodies politic. The tariff and trusts and railroads and interstate commerce are vital civic problems; they affect millions of citizens and billions of dollars of property; yet no one suggests that they be solved otherwise than according to state and national constitutions. Why not apply the same rule to the negro? Why contemplate or tolerate any peculiar consideration of his rights and duties?

So tonight I plead for a constitutional solution of the negro problem. I plead for the same law for the negro as for the white man. "There must be some stage," said the Supreme Court, "when the negro takes the rank of a mere citizen and ceases to be the special favorite of the laws, and when his rights as a citizen, or a man, are to be protected in the ordinary modes by which other men's rights are protected." [109 U. S. 25] That stage is now reached; and for the constitutional rights of the eight million Southern negroes, as mere citizens, I plead tonight.

I plead also for the constitutional rights of the twenty million Southern whites. Behold them staggering under a more grievous burden than oppresses any other Anglo-Saxons on the globe; yet rebuilding their shattered governments, reconstructing their ruined states, and heroically struggling to uplift the negro to a higher plane of humanity.

I plead moreover for the constitutional rights of the sovereign states. Their powers over the negro are almost omnipotent, their jurisdiction practically absolute, and with them, therefore, rests the primary responsibility of solving the negro problem.

As their powers are not exclusive and can and should be supplemented by the nation, I plead also tonight for a non-sectional, non-partisan, national solution; not Northern or Southern, not Republican or Democratic, but a solution that shall embrace the whole American people. New England voted to in-

corporate slavery in the Constitution; the Middle States maintained it when colonies; and the South fought four long years to defend it. Slavery was the crime of the nation, its curse was on all the land, and by the eternal laws of justice the whole nation must atone for it. How to expiate that crime is the negro problem. And the atonement will not be by one generation or two, nor even by us of the third and fourth, but a long line of posterity, generation upon generation, will continue to expiate the crimes of our fathers, perpetrated in a land of liberty and in the home of constitutional government.

What more sublime or patriotic task for this University Convocation than to blaze out a broad, constitutional and educational path along which the teeming generations of the future may continue to evolve the true solution of the negro problem!

I And first let us consider the powers and duties of the states. The Tenth Amendment provides that "powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively or to the people." Few realize the almost unlimited sovereignty of this reserved jurisdiction; and nothing can more effectually assist our inquiries than a clear understanding of the vast powers of our sovereign commonwealths.

Of fundamental importance and comprising the great mass of these reserved powers are the municipal or police functions of the states. They affect primarily the life, liberty and property of the negro and nearly all that concerns his happiness and welfare. "What are the police powers of the state?" inquired Chief Justice Taney; and he answered: "They are nothing more or less than the powers of government inherent in every sovereignty to the extent of its dominions . . . that is to say, the power to govern men and things within the limits of its dominion. It is by virtue of this power that it legislates." [5 How. 583] Chief Justice Waite approved, and commented on, this definition: "The establishment of laws requiring each citizen to so conduct himself, and so use his own property, as not unnecessarily to injure another . . . is the very essence of government. From this source come the police powers . . . Under these powers the government regulates the conduct of its citizens

one toward another." [94 U.S. 124-25] "A state," said the Supreme Court, "has the same undeniable and unlimited jurisdiction over all persons and things, within its territorial limits, as any foreign nation, where that jurisdiction is not surrendered or restrained by the Constitution of the United States . . . All those powers which relate to merely municipal legislation, or what may perhaps more properly be called internal police are not surrendered or restrained, and consequently in relation to these the authority of the state is complete, unqualified and exclusive." [11 Pet. 139] And Mr Justice Harlan thus adds the weight of his authority: "That there is a power, sometimes called the police power, which has never been surrendered by the states, in virtue of which they may, within certain limits, control everything within their respective territories, and upon the proper exercise of which, under some circumstances, may depend the public health, the public morals, or the public safety, is conceded in all the cases." [115 U.S. 661]

Nor have the War Amendments altered these fundamental powers except that they prohibit laws discriminating between citizens on account of race or color. The Fourteenth Amendment, in the words of Chief Justice Fuller, "does not take from the state those powers of police that were reserved at the time the original Constitution was adopted . . . It was not designed to interfere with the power of the state to protect the lives, liberty and property of its citizens, and to promote their health, morals, education and good order." [148 U.S. 662] "Neither the Fourteenth Amendment," said Mr Justice Field, "broad and comprehensive as it is—nor any other amendment, was designed to interfere with the power of the state, sometimes termed its police power, to prescribe regulations to promote the health, peace, morals, education, and good order of the people, and to legislate so as to increase the industries of the state, develop its resources, and add to its wealth and prosperity." [113 U.S. 31]

Thus the municipal or police powers of the states over the negro are the powers to protect his rights and regulate his conduct and affairs; and most important of these are the powers over his civil, social and political rights.

(1) Civil rights appertain to the negro through his citizenship. They are natural rights guaranteed by state and national constitutions; not natural rights alone, nor constitutional guaranties alone, but both combined.

For instance, there is a natural and a civil right of liberty; the negro while a slave possessed the former, the latter was conferred on him by the Thirteenth and Fourteenth Amendments. Together they constitute the civil right of liberty which as an American citizen he now enjoys. Natural rights are conferred by our Creator; civil guaranties which secure them come from the states and nation. No state can increase or diminish the inalienable rights of any citizen white or black; but it is the highest function of the states to guarantee to their citizens the fullest enjoyment of their natural and inalienable franchises. In this republic the enforcement of civil guaranties is entrusted to the states; the national government can interfere when discrimination is made by a state on account of race or color.

Discussing this subject, Chief Justice Waite held that civil rights were not created by the Constitution. That instrument, he explained, assumed their existence and simply guaranteed them "against Congressional interference. For their protection in their enjoyment, therefore, the people must look to the states. The power for that purpose was originally placed there, and it has never been surrendered to the United States . . . The rights of life and personal liberty are natural rights of man. 'To secure these rights,' says the Declaration of Independence, 'governments are instituted among men, deriving their just powers from the consent of the governed.' The very highest duty of the states, when they entered into the Union under the Constitution, was to protect all persons within their boundaries in the enjoyment of these 'unalienable rights with which they were endowed by their Creator.' Sovereignty, for this purpose, rests alone with the states." [92 U. S. 552-53]

Referring to civil rights, Mr Justice Bradley said: "With regard to those acknowledged rights and privileges of the citizen, which form a part of his political inheritance derived from the mother country, and which were challenged and vindicated by centuries of stubborn resistance to arbitrary power, *they belong to him as his birthright*, and it is the duty of the particular state

of which he is a citizen to protect and enforce them, and to do naught to deprive him of their full enjoyment. When any of these rights and privileges are secured in the Constitution of the United States only by a declaration that the state or the United States shall not violate or abridge them, *it is at once understood that they are not created or conferred by the Constitution*, but that the Constitution only guarantees that they shall not be impaired by the state, or the United States, as the case may be. The fulfilment of this guaranty by the United States is the only duty with which that government is charged. The affirmative enforcement of the rights and privileges themselves, unless something more is expressed, does not devolve upon it, but belongs to the state government as a part of its residuary sovereignty." [1 Woods 315]

The Fourteenth Amendment has not altered this fundamental power. "The constitutional provision," said Mr Justice Miller, [16 Wall 77-82] "did not create those rights, which it called privileges and immunities of citizens of the states . . . Nor did it profess to control the power of the state governments over the rights of its own citizens. With the exception of these and a few other restrictions, the entire domain of the privileges and immunities of citizens of the states lay within the constitutional and legislative power of the states, and without that of the Federal government. Was it the purpose of the Fourteenth Amendment, by the simple declaration that no state should make or enforce any law which shall abridge the privileges and immunities of citizens of the United States, to transfer the security and protection of all the civil rights which we have mentioned, from the states to the Federal government? [77] Such a construction would constitute this court a perpetual censor upon all legislation of the states on the civil rights of their own citizens, with authority to nullify such as it did not approve as consistent with those rights . . . The effect is to fetter and degrade the state governments by subjecting them to the control of Congress, in the exercise of powers heretofore universally conceded to them of the most ordinary and fundamental character—in fact it radically changes the whole theory of the relations of the state and Federal governments to each other, and of both these governments to the people . . . We are convinced that no such results were intended.

[78] Under the pressure of all the excited feeling growing out of the war, our statesmen have still believed that the existence of the states, with powers for domestic and local government, including the regulation of civil rights—the rights of person and of property—was essential to the perfect working of our complex form of government.” [82]

(2) The social rights of the negro are also subject to state powers so far as they are under any governmental control whatever.

Social rights are natural and inalienable, but they have no civil guaranties. They are not protected by state constitutions. They are not embraced in the Fourteenth and Fifteenth Amendments. They do not appertain to the negro as an American citizen. They attach to him as an individual, and would belong to him equally were he in America or Africa. They are governed by local customs and individual preferences, not by constitutions and laws; and as Jefferson declared, they are never surrendered or conceded by any people under a just form of government.

The Court of Appeals of this state has given the most luminous exposition of these principles. “In the nature of things,” it said, “there must be many social distinctions and privileges remaining unregulated by law and left within the control of the individual. . . The attempt to enforce social intimacy and intercourse between races by legal enactments would probably tend only to embitter the prejudices, if any such there are, which exist between them, and produce an evil instead of a good result. . . As to whether such intercourse shall ever occur must eventually depend upon the operation of natural laws and the merits of individuals, and can exist and be enjoyed only by the voluntary consent of the persons between whom such relations may arise, but this end can neither be accomplished nor promoted by laws which conflict with the general sentiment of the community upon whom they are designed to operate. When the government, therefore, has secured to each of its citizens equal rights before the law and equal opportunities for improvement and progress, it has accomplished the end for which it was organized and performed all of the functions respecting social advantages with which it is endowed.” [93 N. Y. 448]

In 1875 Congress enacted the Civil Rights bill, intended to secure social equality to the negro in hotels, theatres and public conveyances; but the Supreme Court promptly declared it void on the ground that social are not among the guaranteed rights of the Constitution. [109 U.S. 25] Commenting on this subject, the Court remarked: [163 U. S. 544] "The object of the Fourteenth Amendment was undoubtedly to enforce the absolute equality of the two races before the law, but in the nature of things it could not have intended to abolish distinctions based upon color, or to enforce social, as distinguished from political equality, or a commingling of the two races upon terms unsatisfactory to either. Laws permitting, and even requiring, their separation in places where they are liable to be brought into contact do not necessarily imply the inferiority of either race to the other, and have been generally, if not universally, recognized as within the competency of the state legislatures in the exercise of their police power. The most common instance of this is connected with the establishment of separate schools for white and colored children, which has been held to be a valid exercise of the legislative power even by courts of states where the political rights of the colored race have been longest and most earnestly enforced. [544] If the two races are to meet upon terms of social equality, it must be the result of natural affinities, a mutual appreciation of each other's merits and a voluntary consent of individuals. [551] Legislation is powerless to eradicate racial instincts or to abolish distinctions based upon physical differences, and the attempt to do so can only result in accentuating the difficulties of the present situation. If the civil and political rights of both races be equal, one can not be inferior to the other civilly or politically. *If one race be inferior to the other socially, the Constitution of the United States can not put them upon the same plane.*" [552]

(3) States moreover possess almost absolute power over the political rights of the negro. These are three: to vote, hold office, and act as jurors. Nor are they rights even, but mere privileges. They are not inalienable. The Creator never endowed any one with them. The argument that a Patagonian or Fiji

Islander has a natural right to vote in New York or to be President of the United States equally as he has a natural right to live, requires no refutation. Have the Goths and Vandals that inundate our shores a natural right to vote, and the millions of American women, citizens of this republic, no such right? Never in the history of this republic has the right to vote been possessed by more than twenty per cent of the people. "The mistake on this subject," said Mr Justice Mills, "arises from not attending to the sensible distinction between political and civil rights. The latter constitute the citizen, while the former are not necessary ingredients. A state may deny all her political rights to an individual, and yet he may be a citizen. The rights of office and suffrage are political purely and are denied by some or all the states to part of their population, who are still citizens," and consequently entitled to all their civil rights. [1 Litt. R. 342] If, however, a state should grant political rights, it must not discriminate on account of race or color. This is a Federal restriction and the only one. Otherwise, state powers over the political rights of the negro are as absolute as those of Russia. Construing the Fourteenth Amendment, Chief Justice Wallace remarked: "It will be found that from the earliest period of our history the state laws regulated the privilege of the elective franchise within their respective limits, and that these laws were exactly such as local interests, peculiar conditions, or supposed policy dictated, and that it was never asserted that the exclusion of any class of inhabitants from the privilege of voting amounted to an interference with the privileges of the excluded as citizens." [43 Cal. 51] And Mr Justice Hunt used this vigorous language: "The right of voting, or the privilege of voting, is a right or privilege arising under the constitution of the state and not under the Constitution of the United States. The qualifications are different in the different states. Citizenship, age, sex, residence, are variously required in the different states or may be so. If the right belongs to any particular person, it is because such person is entitled to it by the laws of the state where he offers to exercise it, and not because of citizenship of the United States. If New York should provide that no person should vote until he reached the age of thirty years, or after he had reached the age of fifty, or that no

person having gray hair, or who had not the use of all his limbs, should be entitled to vote, *I do not see how it could be held to be a violation of any right derived or held under the Constitution of the United States.* We might say that such regulations were unjust, tyrannical, unfit for the regulation of an intelligent state; but, if rights of a citizen are thereby violated, they are of that fundamental class, derived from his position as a citizen of the state, and not those limited rights belonging to him as a citizen of the United States." [11 Blatch. 204-5]

Nor does the Fifteenth Amendment, said Chief Justice Waite, "confer the right of suffrage upon any one. It prevents the states, or the United States, from giving preference, in this particular, to one citizen of the United States over another on account of race, color or previous condition of servitude. Before its adoption, this could be done. It was as much within the power of the state to exclude citizens of the United States from voting on account of race, etc., as it was on account of age, property, or education. Now it is not. If citizens of one race having certain qualifications are permitted by law to vote, those of another having the same qualifications must be. Previous to this amendment there was no constitutional guaranty against this discrimination; now there is." [92 U.S. 217-18]

As between states and individuals there have always been, as Mr Justice Hunt said, and there always will be, many cases of hardship in the administration of even the most apparently equal suffrage qualifications; but the remedy lies in an appeal to state governments, and until there is at least evidence of intentional failure of the states to act, the Federal authorities can not even interfere. On this point the Supreme Court has decided: "It is hardly necessary to say that the hardship, impolicy, or injustice of state laws is not necessarily an objection to their constitutional validity; and that the remedy for evils of that character is to be sought from state legislatures. . This court is not a harbor where refuge can be found from every act of ill advised and oppressive state legislation." [115 U.S. 520-21]

(4) Such being the state powers over the negro, what are the corresponding state duties?

Assuredly no state can have duties toward negroes, if it has no negroes within its boundaries. It can have no negro problem without negro citizens. Hence it is most important to determine the present and probable future situs of the negro race in America.

In 1860 the slave states held 4,215,614 negroes and the rest of the country 226,216, or 1.2 per cent of its population. In 1900 there were 8,081,001 negroes in the former slave states, and in the rest of the country 759,788, or 1.5 per cent of its population, a relative increase in forty years of merely three tenths of one per cent. There are now in the free states west of the Mississippi only 162,613 negroes, in Idaho for instance 293, North Dakota 286, South Dakota 465 and Oregon 1105; while in New England there are only 59,099, in New Hampshire for example 662, Vermont 826 and Maine 1319. In the two cities of New Orleans and Baltimore there are almost as many negroes as in all the West, and 100,000 more than in all New England. There are more negroes today in either Alabama, Georgia, Mississippi or South Carolina than in all the free states and territories of the Union.

Thus the negro is today, where he has always been, in the old slave states. Moreover, he has not moved northward, but since emancipation he has been steadily moving southward, gradually segregating himself into the lower Atlantic and Gulf states — South Carolina, Georgia, Florida, Alabama, Mississippi, and Louisiana. In many counties of these states blacks outnumber whites three to one, in many others two to one, while throughout the six states taken as a whole, negroes today exceed the whites. In the states, however, bordering these to the north and west whites have increased since the Rebellion 140 per cent while negroes have increased only 80 per cent. Taking, then, the six Atlantic and Gulf states, we have 300,000 square miles of compact and uniform territory, bounded on the east by the Atlantic, on the north by the 35th parallel running straight through to the Mississippi, on the west by Texas, and on the south by the Gulf. In all that land there is only one city larger than Albany, only two larger than Utica. It is an agricultural land, a land of cotton and sugar cane, a land that has more negroes than whites, a land that has more negroes than all the rest of the United States, a land that

the negro has already possessed, that he will never abandon, and that will always remain his permanent home in America.

And what practicable arguments are offered against these conclusions? None whatever. The plan to export and colonize the blacks, advocated by Jefferson and Madison and Clay and other early abolitionists, is revived and urged today as a feasible solution. But the negro is now a citizen. He has equal rights with the whites. To deport him to Mexico, or San Domingo, or elsewhere, you must first secure his consent. It is folly to expect that eight million American citizens will voluntarily expatriate themselves. They are here to stay, like any other American citizens. Such a plan is visionary and chimerical.

So also is the proposition that the negro shall disperse throughout the United States, intermarry with the whites, and disappear into a physically amalgamated race. Wendell Phillips has left this record: "Remember this, the youngest of you, that on the fourth day of July, 1868, you heard a man say that in the light of all history, in virtue of every page he ever read, he was an amalgamationist to the utmost extent;" and Canon Rawlinson thus concludes a review of our race difficulties: "To us on-lookers at a distance, entirely disinterested spectators, it seems that amalgamation is the true remedy and ultimate absorption of the black race into the white, the end to be desired and aimed at." But in discussing this problem, Phillips and his school have made a common, initial blunder. They have assumed that the negro would disperse throughout the whole United States and become absorbed by the entire white population. As we have seen, however, he has not stirred northward for forty years, and there is no probability that he will in the future. The major premise of the amalgamation argument is fallacious, and the whole theory falls with it.

Primarily, therefore, on the Atlantic and Gulf states, and next on the other states of the old South, will forever rest the *state* solution of the negro problem. New York is excluded. It has no negro problem. It has no duties to perform. Should our Legislature make an appropriation to educate negroes in Alabama or Florida for instance, the act would be unconstitutional. Nor is there a negro problem anywhere in the East or North or West. It

affects none of the other commonwealths. They and their powers and duties and enormous financial resources are all eliminated from the *state* negro problem. They have no more to do with it than they have with the internal affairs of Persia or Yucatan.

(5) Such being the powers of the states and such the states that alone can exercise them, how have they discharged their duties?

Within their borders mobs and individuals have perpetrated gross outrages against the rights of negro citizens, but none more ghastly or horrible than those of Illinois and Ohio. And as the *states* of the West are not primarily responsible, no more are the *states* of the South.

Since the Rebellion the states have gradually confirmed the civil rights of the negro by a great mass of municipal or police legislation. No Southern state now opposes the negro's civil equality; no state attempts to deprive him of his inalienable rights or his constitutional guaranties; his life, liberty and property are not coveted; his writ of habeas corpus is secure; his right of jury trial is unchallenged; every avenue of industry is open to him, in the South far more than in the North; he has his own homes, schools, churches, asylums, hospitals and benevolent institutions, and is protected in their enjoyment equally with the whites.

Within the broad lines of the decisions, the states have also protected the social rights of the negro. Under their municipal or police powers states have established separate schools, forbidden either race to attend the schools of the other, prohibited intermarriage of whites and blacks, separated the races in hotels, theatres and public conveyances, and legislated generally for the physical, mental, moral and religious uplifting of every negro citizen in their bodies politic—and all these laws the Supreme Court has declared are within the police powers of the states, and, while constituting social discriminations, violate no constitutional guaranties.

Concerning political rights, it is urged that under the new constitutions the South is disfranchising the negro and excluding him from office. Assuming that the charge is true, I maintain that the blame should not rest primarily on the states.

Congress, as we shall see, has plenary power to regulate the political rights of all its citizens. At any time since the Rebellion it could have passed a uniform Federal statute regulating the suffrage of whites and blacks throughout the Union. In the absence of such national guidance, each state has been a guide unto itself. Mississippi adopted one constitutional restriction, Alabama another, and Virginia a third. The result is confusion and possibly political wrong to the aggregate negro citizenship. But we should be charitable enough to attribute this to failure of details of administration, not to a deliberate attempt to commit political crimes under the guise of constitutional authority. If, however, under the same constitution whites in any state can vote and negroes equally qualified can not, that, I admit, is a political wrong and for it there is no justification. I condone no crime on suffrage. I justify no political fraud, whether perpetrated in Louisiana or the Carolinas; any more than in Massachusetts or California. But "he that is without sin among you let him first cast a stone; . . . and they which heard it being convicted by their own conscience, went out one by one." Does it lie with the Empire State, so often disgraced by the corruption of its great cities, to cast the first stone? Can Philadelphia or Chicago show clean hands when they go before the bar of public opinion to indict the South for political crimes and misdemeanors? I plead for even handed justice. Would you indict twenty million people for the crimes of a few? Would you find a true bill against fifteen states because some may have unconstitutional provisions? And by whose authority do you say they are unconstitutional? So far, every decision of the Supreme Court has sustained them! By whose warrant do you declare that the South is illegally disfranchising the negro? I am of opinion that property and educational qualifications in all their constitutions will be declared valid, while the "grandfather clause" will be pronounced void. I am also of opinion that the "grandfather clause", if unconstitutional, can be separated without destroying the educational qualification. "Statutes [and State Constitutions] that are constitutional in part only will be upheld so far as they are not in conflict with the Constitution, provided the allowed and prohibited parts are severable." [95

U. S. 89; 120 U. S. 685] But there is yet no such decision. Suspend judgment, I pray you, until the Supreme Court shall have passed upon these momentous problems and shall have decided them, as it will, with equal and impartial justice. Meanwhile the South has demonstrated the wisdom of disqualifying all illiterate voters, white and black. I believe with Jefferson that a state constitutional provision justly administered, "which disfranchises every citizen who can not read and write," "will immortalize its inventors"; that it is "the fruitful germ of the improvement of everything good and the correction of everything imperfect"; and that it "will give you an enlightened people and an energetic public opinion." If the national government does not enact a uniform educational qualification for suffrage, every state in the Union will ultimately be compelled to adopt such a qualification, and the sooner the better. Instead of imputing this as a crime to the South, rather let us commend it for so uniformly adopting the most momentous political reform of the century.

(6) The states having exercised all these powers and duties, what, you ask, remains of the negro problem?

Nothing, you say. Substantially everything, I reply; and for the reason that the protection of civil, social and political rights is not the vital factor in its solution. Behold an anomalous and unparalleled situation! The nation enfranchises millions of negroes, makes them citizens, thrusts them upon the states, and yet four million of them are today so densely ignorant, so criminally vicious, so indescribably poor and thriftless that they neither comprehend their rights nor have the capacity to exercise or enjoy them. Listen to the late secretary of the Peabody fund, as true a friend as the negro ever had: "A whole generation has passed since emancipation, and eighty per cent or more of the nearly eight million never knew the evils of personal slavery. Much has been done for the negro, and yet a large proportion are as poor, as ignorant, as thriftless, as improvident, as unfit for responsibilities and privileges of citizenship and suffrage as were their ancestors at the close of the great war. With a preponderant majority there is a low level of intelligence and morality, with rudimentary notions of comfort and under the influence of

grossest superstition. No peasantry in Europe, no laboring class in any civilized country, occupies a lower position in home comforts, in skilled industrial capabilities, in potential influence upon public opinion, upon thought, upon all the constructive and beneficial agencies of civilization, than does the black population of the Southern states."

There is your negro problem. For forty years "much has been done," as Dr Curry said, yet there is your problem still; and it has only one possible solution. Recreate that festering mass of humanity; transform it into men. What constitutes a state? Not laws alone, nor mere protection of rights. It is "men, high-minded men, with powers as far above dull brutes endued . . . as beasts excel cold rocks and brambles rude; men who their duties know, but know their rights and knowing dare maintain. These constitute a state." Let the states make the negro into such men and the negro problem will disappear.

With blacks exceeding whites three to one in many Atlantic and Gulf counties, two to one in many more, and outnumbering the whites in the six states as a whole, why must not those states speedily face the inquiry, what will the blacks do with them? "A spider in his natural size is only a spider," said Edmund Burke, "ugly and loathsome, and his filmy net is only fit for catching flies. But suppose a spider as large as an ox and that he spread cables about us; all the wilds of Africa would not produce anything so dreadful." You say no colored race has faced the Anglo-Saxon and lived, and the Southern whites are the purest Anglo-Saxons in the republic; but remember this. never before have Anglo-Saxons faced a colored race not only equal in numbers, but equal in rights and under a sovereign government that has guaranteed, and is able and bound to enforce, such rights. What, I ask, will the illiterate blacks do with the Atlantic and Gulf states? There is your spider already grown large as an ox. Beware lest he spread cables about you. All the wilds of Africa would not produce anything so dreadful! There, I repeat, is your negro problem, and there is only one relief from the appalling situation. The negro is a citizen. Elevate him to the full standard of American citizenship. And there is only one possible means, education. Educated citizens, "these constitute a state"; educated in intelligence, industry,

morals, and religion. And *how* thus to educate the negro — that in its last analysis is the negro problem.

(7) Can the Atlantic and Gulf states unaided educate the negro? I answer emphatically, no! Can all the slave states do so? I am of the opinion they can not.

In this ultimate analysis it is solely a question of the financial resources of the states affected; and, with the rich and powerful commonwealths of the Union eliminated, the resources of the remaining states, I maintain, are entirely inadequate. In 1890, when the last available data were compiled, the real and personal property of the fifteen old slave states was \$13,380,517,311, of which blacks owned approximately only 3.3 per cent, an average of \$64.20 each. The six Atlantic and Gulf states had \$3,215,127,929, of which blacks owned approximately only 3.5 per cent, an average of \$28.60 each. New York, in contrast, owned \$8,516,701,991, or \$1,429.94 each, and Pennsylvania \$6,190,746,550, or \$1,177.39 each; nearly a billion and a half more than all the South combined.

But even this is not the whole truth. Southern whites possess approximately 96.7 per cent of the wealth and pay approximately 96.7 per cent of the taxes, while negroes own and pay approximately only 3.3 per cent. The whites, therefore, have not only to bear their own state burdens, but practically those of the eight million negroes also.

Consider also the burden of negro illiteracy and crime that overwhelms the South. The percentage of negro illiterates to negro population throughout the South is 48; in the Atlantic and Gulf states 53, in Alabama 57.4, and in Louisiana 61.1; while in the rest of the United States the percentage of illiterates to the population is only 7.7. In Louisiana the proportion of convicts in the state penitentiaries coming from illiterate blacks is 85 per cent of all the state criminals, in Alabama 85.4, in Florida 86.4, in Georgia 90.4, in Mississippi 91, and in South Carolina 93.2.

Yet with negro illiteracy so dense and criminal, the South expends annually on each pupil enrolled in its schools only \$4.95, the Atlantic and Gulf states \$3.54, Georgia \$2.85, South Carolina \$2.37, and Alabama \$1.85; while Massachusetts, with 5.9 per cent illiterates, expends on each pupil \$22.30; New York with 5.5 expends \$16.69, and Illinois with 4.2 expends \$14.50.

Nor is this because the South is doing less than it can, but because it can not do more. Ever since the Rebellion, as the secretary of the Southern Education Board explained, the South has been "forced to provide for the education of two populations out of the poverty of one"; and yet, to use his words, "of the total revenues" of many of these states "fifty per cent are now devoted to the maintenance of education." And since 1870 the South has voluntarily taxed itself and expended for the education of the negro no less than \$109,000,000. When any other considerable portion of our country equals this record, it may be proper to contend that the South is not performing its full duty in the education of its negro citizens. Still each pupil in Alabama receives annually only \$1.85, in South Carolina \$2.37, and in Georgia \$2.85.

Thus it is not because the states lack constitutional powers, or have failed to discharge their duties, but simply because their financial resources are utterly inadequate to meet the enormous demands of their negro citizens. States hold their powers as trustees for all their citizens, white and black alike, and as trustees they must not allow a zeal for their negro beneficiaries to impair the trust estate. No duty requires and no law permits them to *impair* their resources by expending money for negro education, nor to confiscate state property by ruinous taxation for the general uplifting of their negro citizens. Yet this is the definite alternative the South has faced ever since Emancipation — millions of poverty-stricken, ignorant and illiterate negroes, made citizens and voters by the nation, ruthlessly injected into its bodies politic, and left there for the states to educate and uplift as citizens and voters, without a dollar of assistance from the nation, and with no adequate financial resources of their own to meet the appalling emergency!

Here the South has collapsed. This is why neither the six states nor the whole South can today unaided solve the negro problem. And this collapse is distinctively a financial, not a constitutional breakdown. Nor can private aid or organized philanthropy adequately supplement state resources. The problem is to educate and uplift eight million negro citizens in the South. Private philanthropy is doing a noble work, but it affects directly only forty one thousand! If the states can not solve the negro

problem, assistance must come from a power superior, not inferior, to the states themselves.

How few even in this audience of scholars realize the supreme gravity of the situation!

How few know there are more illiterates in the South today than ever before!

How few understand that constitutional efforts of the South must fail unless supplemented by financial aid far beyond the resources of the states themselves!

A tidal wave submerged Galveston, and a thrill of horror ran throughout the land. Do you not behold a huge tidal wave of negro illiteracy gathering force along the whole south Atlantic and Gulf coast, slowly pushing its way inland, and submerging not one city nor one county only, but six sovereign states and threatening as many more!

On behalf of your white brothers of that submerged land, and of your sister states below Mason and Dixon's line, I would send out tonight such a clarion cry for assistance as would thrill the conscience of the people and startle the nation into measures of immediate and permanent relief!

And this brings us logically to the inquiry, what can and should the nation do in the premises?

II I advance the broad proposition that the nation has ample power to educate its illiterate citizens, white and black, to perform every obligation of American citizenship.

The states, as I have shown, can exercise over the negro a great mass of reserved powers, unenumerated in their constitutions. But the nation can not. It can exercise no internal powers whatever unless warrant therefor be found in the Federal Constitution. [106 U. S. 635]. Hence "whenever the question arises concerning the constitutionality of a particular power, the first question," said the Court, "is whether the power be *expressed* in the Constitution. If it be, the question is decided. If it be not expressed, the next inquiry must be, whether it is properly an *incident* to an express power, and necessary to its execution." [106 U. S. 636]

What, if any, therefore, are the express Federal powers to educate the negro? The Fourteenth Amendment confers express

power over negro citizenship. It made the negro race in America, five million men, women and children, citizens of the United States, but it contains no express provision for their education. Nor does the Fifteenth Amendment. It expressly guarantees equality of suffrage to negro voters, but is silent as to their education. Article I, Section 4, of the Constitution, confers express power to regulate Federal elections, but makes no specific provision for the education of Federal electors. Article 1, Section 8, authorizes Congress "to establish an uniform rule of naturalization." The latent possibilities of this clause over the education of immigrants are almost limitless, but it confers no express power to educate the people. And Article VI incorporates into the Constitution the Ordinance of 1787 which provides that "schools and the means of education shall forever be encouraged." This is an express obligation and doubtless also an express power to grant Federal aid to education, but it confers on the nation no *express* power to educate its citizens. These are the constitutional provisions, if any, from which express Federal power must be derived to educate the negro. I am of opinion they confer on Congress no express authority for this purpose. I am of opinion, however, they confer most ample implied power; and to prove this is the supreme function of my address.

In the Reconstruction debates, Charles Sumner urged that education be made fundamental to the reconstruction of the Southern states; but he urged it as a war measure. "Whatever is required," he said, "for national safety is constitutional. Not only it may be done, but it must be done." Education, he maintained, was as necessary as forts; therefore the nation could and should educate. Those were arguments of war, not of peace; evolved from the principle of national defense inherent in this republic as in every other sovereignty, and not from powers expressed in our written Constitution.

In the voluminous discussions of national aid to education, express Federal power to educate was assumed, or based on the "general welfare" clause. The assumption of express power, I have shown, was not justified, for there is no such power in the Constitution; and since the days of Chief Justice Jay and Thomas Jefferson, our ablest jurists and statesmen have uniformly held that the "general welfare" clause is a taxing power only.

I approach this subject from an entirely new point of view. I concede that the nation has no *express* power to educate. I advance with deference these propositions: (1) The nation has express constitutional power over Federal elections, Federal citizenship, Federal suffrage and Federal aid to education; (2) it has *implied* power to enact and should immediately enact a uniform educational qualification for all Federal voters; (3) as a corollary to its express power over elections, citizenship, suffrage and aid to education, it has *implied* power to educate and should educate all illiterate United States citizens, white and black, to perform their obligations of American citizenship.

Let us not deceive ourselves as to the gravity of these propositions. They have never heretofore been formulated. They have never been demonstrated. There are no eminent authorities in their support. They have never been judicially determined by the Supreme Court. You have the right to demand from me tonight their conclusive demonstration or I must abandon them as failures.

Preliminary to their consideration, let us determine what are the *implied* powers of the Constitution. Article I, Section 8, says, "Congress shall have power . . . to make all laws which shall be necessary and proper for carrying into execution the foregoing powers"; and the War Amendments declare, "Congress shall have the power to enforce by appropriate legislation the provisions of this article." Thus, the right of the Federal government to exercise implied powers is an express constitutional grant. In the great case of *McCulloch*, Chief Justice Marshall thus defined their scope: "The sound construction of the Constitution must allow to the national legislature that discretion, with respect to the means by which the powers it confers are to be carried into execution, which will enable that body to perform the high duties assigned to it, in the manner most beneficial to the people. Let the end be legitimate, let it be within the scope of the Constitution, and all means which are appropriate, which are plainly adapted to that end, which are not prohibited, but consist with the letter and spirit of the Constitution, are constitutional." [4 Wheat. 421] Discussing implied powers, the Supreme Court further said: "The words 'necessary' and 'proper' are not limited to such measures as

are absolutely and indispensably necessary, without which the powers granted must fail of execution; but they include all appropriate means which are conducive or adapted to the end to be accomplished, and which in the judgment of Congress will most advantageously effect it." [110 U. S. 440] "Every right," continued the Court in a later opinion, "created by, arising under or dependent upon, the Constitution of the United States, may be protected and enforced by Congress by such means and in such manner as Congress, in the exercise of the correlative duty of protection, or of the legislative powers conferred upon it by the Constitution, may in its discretion deem most eligible and best adapted to attain the object." [144 U. S. 293]

Applying these principles, what are the *implied* powers of the national government to educate its illiterate citizens, white and black, to perform the obligations of American citizenship?

(1) The nation has implied power to enact a uniform educational qualification for all Federal voters, under Article I, Section 4, of the Constitution.

"The times, places and manner of holding elections for senators and representatives," says the Constitution, "shall be prescribed in each state by the legislature thereof, but Congress may at any time by law make or alter such regulations." I concede the power of states to regulate their own elections. It is plenary and unlimited except by their own legislative discretion. As Mr Justice Hunt remarked; "If New York should provide that no person . . . having gray hair or who had not the use of all his limbs, should be entitled to vote, I do not see how it could be held to be a violation of any right derived or held under the Constitution of the United States." [11 Blatch. 204]

The power of a state to adopt an educational qualification as a part of its regulations for voters is elementary, and inherent in its municipal or police powers. Such a qualification is contained in the Dortch law of Tennessee. The Supreme Court of that state held that the provision "does not impose any oppressive or impossible condition upon the exercise of the elective franchise" and that "it is a just and reasonable exercise of the legislative power to enact laws to secure the freedom of elections and the purity of the ballot box." [90 Tenn. 409]

The Supreme Court of the United States has also adopted the principle that such a qualification of suffrage is a reasonable exercise of state police power. While passing upon a number of such limitations in the Idaho law, it held that "the general legislative power to pass laws"—a power that every state necessarily possesses—is sufficient authority for imposing such a condition upon the exercise of its political franchises; that, the Court said, is a "reasonable qualification of voters and for holding office." [133 U. S. 346] As to the effect of the Amendment upon State control of political franchises, Mr Justice Strong said: "Within the limits from which it is not excluded by the Amendment, a state may prescribe the qualifications, and in so doing make discriminations. It may confine the selection to males, to freeholders, to citizens, to persons within certain ages or to persons having educational qualifications." [100 U. S. 310]

If therefore an educational qualification be for "the freedom of elections and the purity of the ballot box," as the Tennessee court says, then it is a "reasonable qualification of voters," within the rule of the Supreme Court, and justified by the general legislative power of the state. [133 U. S. 346] If states adopt age, sex, property or educational qualifications, the validity of the law can not be questioned. And further, if they embody such qualifications in their constitutions and make them an essential and vital part of their "manner of holding elections," it is a political act, vested solely within their legislative discretion, valid, unquestionable, and must so stand without appeal.

It is such state regulations that Congress may adopt, "make" its own, or "alter." Hence, when Congress finds an educational requirement incorporated in a state constitution or statute and made a qualification of state and Federal voters, it has no power to deny that it is a valid part of the "manner of holding [such] elections."

As the power of Congress to adopt is as broad as the power of the states to enact, Congress can adopt any means or instrument or qualification which the states have enacted. Said Mr Justice Miller: "It is past debate that Congress has the power under the Constitution to adopt the laws of the several states respecting the mode of electing members of Con-

gress. . This court has held more than once that Congress has exercised this power, and has adopted these laws." [127 U. S. 752] Therefore under Article I, Section 4, Congress, if it deems proper, may adopt as its own and enact as a Federal election law, state constitutions or statutes prescribing an educational qualification for state and Federal voters.

Five states in the South and five in the rest of the country have already adopted into their constitutions and election laws and made a part of their "manner of holding elections," an educational qualification for state and Federal voters. And it has been expressly held by the Supreme Court that a state constitution prescribing an educational requirement for suffrage is not in derogation of the Federal Constitution. That was the Williams case of Mississippi. [170 U. S. 213] And that these educational qualifications are deemed an essential part of one general election law respecting "the times, places and manner of holding elections," and not based on another or different principle, is shown by the fact that they have uniformly been enacted by constitutional amendment, making the qualification and registry of voters and the casting and return of votes all parts of one elective system. [189 U. S. 475]

As the organic law of a state is the most solemn expression of the will of its people, assuredly we must admit that at least ten sovereign states of the Union have made education a fundamental requirement of their "manner of holding elections." Hence on such initiative the national government may prescribe an educational qualification for all Federal voters, either by adopting the state educational qualifications or by enacting an independent Federal statute. It may exercise its power over elections either "wholly or partially." [100 U. S. 383] It may adopt the election laws of the states entire, including their educational qualifications; it may alter them by eliminating the "grandfather clause" for instance; or it may add to them in its discretion. "The power of Congress over the subject," said Mr Justice Bradley, "is paramount. It may be exercised as and when Congress sees fit to exercise it. When exercised, the action of Congress, so far as it extends and conflicts with the regulations of the state, necessarily supersedes them." [100 U. S. 384] The sole test in the adoption of state constitutions

and laws will be the good of the nation; and the sole limitation upon the selection of state qualifications will be the legislative discretion of Congress.

Congress may also enact an independent educational qualification for Federal voters, uniform throughout the whole United States. I maintain that the law of uniformity, a constantly expanding principle of Federal jurisprudence, requires that Congress shall make the educational qualification of Federal voters national in extent. Public welfare imperatively demands that such a statute should be enacted immediately. As Chief Justice Marshall said, in an early case: "The genius and character of the whole government seems to be that its action is to be applied . . . to all those internal concerns which affect the states *generally*." [9 Wheat. 195] Later Mr Justice Bradley remarked: "The national government . . . has jurisdiction over all those general subjects of legislation and sovereignty which affect the interests of the whole people, equally and alike, and which require *uniformity of regulations and laws*." [12 Wall. 555-56]

We may assume that one of the main objects of Article I, Section 4, in giving Congress supervisory power over elections was to promote uniformity and prevent diversity of election and suffrage laws in the different states. As Mr Justice Curtis said of the concurrent jurisdiction of state and nation: "Whatever subjects of this power are in their nature national, or admit only of one uniform system or plan of regulation, may justly be said to be of such a nature as to require exclusive legislation by Congress." [12 How. 319] And thus, the requirement of national uniformity may be deemed by Congress, in its political discretion, a just occasion for assuming exclusive control of the suffrage, and, such decision being political, there can be no appeal therefrom.

The jurisdiction of the United States is exclusive, according to the rule laid down by Chief Justice Waite, "when the subjects on which it is exerted are national in character, and admit and require uniformity of regulations." [116 U. S. 334] "Where the subject-matter requires a uniform system as between the states," said Chief Justice Fuller, "the power controlling it is vested exclusively in Congress, and can not be encroached upon by the states." [135 U. S. 108-9] "The power of Congress," said Mr

Justice Bradley, "is exclusive wherever the matter is national in character or admits of one uniform system or plan of regulation." [114 U. S. 630]

Whenever Congress enacts such a uniform statute, all inconsistent statutes of particular states are ipso facto superseded and abolished. "It is enough," in the opinion of Mr Justice Brewer, "that the two statutes operating upon the same subject-matter prescribe different rules. In such case one must yield, and that one is the state law." [158 U. S. 103] And, as Mr Justice Miller, discussing the local quarantine laws of Louisiana, said, "It may be conceded that whenever Congress shall undertake to provide for the commercial cities of the United States a general system of quarantine . . . all state laws on the subject will be abrogated, at least so far as the two are inconsistent." [118 U. S. 464]

Such has been the policy of the states and the nation on all subjects of concurrent jurisdiction. Where the jurisdiction exists, and the subject-matter is national in character and admits of one uniform system, Congress has the power to enact and administer uniform Federal statutes. Such, for instance, are the uniform Federal statutes regulating navigable waters, patents, trademarks, copyrights and bankruptcy.

The exceptions even emphasize the rule. The conflict between the marriage and divorce laws of the various states for instance, is a national scandal. If Congress had the power, it would be its unquestioned duty to enact uniform Federal marriage and divorce laws; but because it has neither express nor implied authority over the subject, it can do nothing. On the other hand because Congress has the power, it has enacted uniform patent, copyright and bankruptcy laws; and likewise because it has power to regulate Federal elections and because the qualification of voters is such a regulation, Congress can and should prescribe the terms and conditions of such qualification.

If conflicts of jurisdiction have compelled Congress to enact uniform laws regulating commerce and pilotage and patents and bankruptcy, why not also uniform laws regulating Federal suffrage? The purity of the ballot is as essential to the safety and good government of the nation as the regulation of patents and pilots. An enlightened democracy is as requisite to national

welfare as uniform bankruptcy laws. Contrariety of restrictions is as embarrassing to suffrage as to interstate commerce. And if Congress determines that the conflicting election laws of the different states, an educational qualification in one, a property qualification in another, and none in a third, can be cured or improved by a uniform educational qualification of the suffrage, I maintain it has unqualified power to enact a Federal statute regulating the whole subject.

(2) The nation has implied power to educate its illiterate citizens, white and black, as a corollary to its power to enact a uniform educational qualification.

It is a corollary just as implied power to acquire and govern the Philippines is correlative to the express power "to declare war" and "to make treaties"; as the Sherman trust law is ancillary to the express power "to regulate commerce among the several states"; as hundreds of postal laws and regulations are corollaries of the simple express power "to establish postoffices and post roads"; and as the great mass of shipping and admiralty statutes are all correlative to the express power "to regulate commerce with foreign nations."

I again concede that the national government has no express power over national education. Its power is not that original municipal or police authority over education possessed by the states; nor even the inherent police power which the nation itself possesses in the District of Columbia and the territories. The nation's power to educate its illiterate citizens white and black is merely ancillary and derivative. When education is necessary or conducive to the execution of one of the express powers of the Constitution, then the national government can employ education as a means of achieving that end. Quoting again Chief Justice Marshall, "Let the end be legitimate, let it be within the scope of the Constitution, and all means which are appropriate, which are plainly adapted to that end . . . are constitutional." [4 Wheat. 421] To regulate Federal suffrage is an express power. Implied therefrom is the power to enact a uniform educational qualification; and as a corollary I claim the power to educate. Is not education "plainly adapted," as Chief Justice Marshall puts it, to preparing citizens for an edu-

cational qualification? If not, what possible means is more "plainly adapted to that end"?

Suffrage is the supreme political franchise of citizenship. Good government and the very existence of the republic depend upon its right exercise. Therefore the restriction of the suffrage to the educated, intelligent and moral is an appropriate exercise of governmental control over the elective franchise. The gravest peril that threatens the republic is the suffrage of the ignorant and vicious. Therefore the exclusion of these elements by an educational qualification to the elective franchise is an appropriate function of government. Moreover, almost as grave a danger as the participation of the ignorant and vicious in the government is the existence of a vast mass of ignorant and vicious citizens excluded from all participation therein. To disfranchise for ignorance and not to endeavor to remove the bar by education would be an illogical as well as dangerous experiment. Hence the power to prescribe an educational qualification for Federal suffrage and the power to educate in order to remove such disqualification are necessary and integral parts of a uniform Federal election law.

(3) The nation has implied power to educate its illiterate negro citizens, as a corollary to the Fourteenth Amendment.

This power is conferred by Section 5: "Congress shall have power to enforce by appropriate legislation the provisions of this Article." The power is not negative and passive only, like constitutional prohibitions, but affirmative; it authorizes Congress to employ affirmative legislation to execute it. The power is "to enforce"; the agent is Congress; the means are "appropriate legislation"; and the objects are the "provisions" of the Amendment.

1 The power "to enforce" means simply to carry out, to give effect and force to. It is supplementary to the general power of Article I, Section 8, "to make all laws which shall be necessary and proper for carrying into execution the . . . powers vested by the Constitution in the government." The phrase, "carry into execution," is equivalent to "enforce." [16 Pet. 615] Thus the provisions of the Fourteenth Amendment

can be enforced both by implied power under Article I, Section 8 [144 U. S. 293], and, as Mr Justice Swayne explained, by the "express authority" contained in the Amendment itself. [100 U. S. 311] "The Amendment derives much of its force" from the express authority of Section 5 [100 U. S. 345]; and "it is to be construed liberally to carry out the purposes of its framers." [100 U. S. 307] Therefore Congress has express power to carry into effect the provisions of the Amendment, and the Supreme Court has expressly declared that "legislation is contemplated to make the amendment *fully effective*." [100 U. S. 345]

By "appropriate legislation" the Amendment intends "whatever legislation is . . . adapted to carry out the objects the Amendment has in view" [100 U. S. 345-46]; or any "efficient and appropriate mode" of extending and securing its provisions. [100 U. S. 310-11] Any means are "appropriate," said Mr Justice Gray, which are "conducive or adapted to the end to be accomplished." [110 U. S. 440] Article I, Section 8 provides that legislation must be "necessary and proper" for the purpose intended. The power under the Fourteenth Amendment, Section 5, is more liberal—legislation shall be "appropriate." Under Section 8 arose the doctrine of strict construction; under Section 5 there can be no such contention.

The choice of means, moreover, to carry out the objects of the Amendment, as in the case of every constitutional power committed to it, is left wholly to the discretion of Congress. "Rights and immunities created by or dependent upon the Constitution of the United States can be protected by Congress. The form and the manner of the protection may be such as Congress in the legitimate exercise of its legislative discretion shall provide. These may be varied to meet the necessities of the particular right." [92 U. S. 217] "Every right created by, arising under or dependent upon the Constitution of the United States may be protected and enforced by Congress by such means and in such manner as Congress . . . may in its discretion, deem most eligible and best adapted to attain the object." [144 U. S. 293] Therefore Congress may give effect to the "provisions" of the Fourteenth Amendment by *any legislative means* it deems appropriate for the purpose.

The "provisions" mean the terms of the Amendment; but the terms of an instrument can not be enforced except by enforcing its *purpose* and *intent*. Any means that effectuate its *purposes* will enforce its "provisions." Hence also Congress has power to carry out the purposes of the Amendment by any legislative means it deems appropriate.

2 The main purpose or "provision" of the Amendment is defined in the first clause: "All persons born or naturalized in the United States and subject to the jurisdiction thereof, are citizens of the United States and of the state wherein they reside." The sole object of this clause is to confer citizenship, not upon whites, but upon negroes, of the United States. The Fourteenth is one of the War Amendments which Mr Justice Miller said could not be understood or rationally interpreted without considering their history and design. Their one great and pervading purpose was to embody the results of the war by securing the rights of the negro race. [16 Wall. 67-72] "It is true," said the learned Justice, "that only the Fifteenth Amendment in terms mentions the negro by speaking of his color and his slavery. But it is just as true that each of the other articles was addressed to the grievances of that race and designed to remedy them as the Fifteenth." [16 Wall. 71-72]

Of the first clause Mr Justice Miller said: "That its main purpose was to establish the citizenship of the negro admits of no doubt." [16 Wall. 73] "The main object of the opening sentence of the 14th Amendment," in the opinion of Mr Justice Gray, "was to settle the question as to the citizenship of free negroes." [112 U. S. 101] "Its main purpose," adds Chief Justice Fuller, "doubtless was to establish the citizenship of free negroes which had been denied in the opinion delivered by Chief Justice Taney in *Dred Scott* against *Sanford*." [169 U. S. 676] And Mr Justice Field more fully explains, "The clause as to citizenship was inserted in the Amendment not merely as an authoritative declaration of a generally recognized law of this country so far as the white race is concerned, but also to overrule the doctrine of the *Dred Scott* case." [22 Fed. Rep. 909] It is thus evident that the Amendment was a special act for the benefit of the black race alone.

The citizenship of white persons was not affected one way or the other; for, as Chief Justice Waite showed conclusively in the Woman Suffrage case, white men, women and children were citizens before the Amendment, hence the Amendment could not make them more so. [21 Wall. 170] Whites no more owe citizenship to the Fourteenth Amendment, as Chief Justice Wallace explained [43 Cal. 46], than they owe freedom to the Thirteenth. But as to negroes, "the clause changed the entire status of these people. It lifted them from their condition of mere freemen and conferred upon them, equally with all other native born, the rights of citizenship." [22 Fed. Rep. 909]

The Amendment made the negro a citizen both of the United States and of the state wherein he resides. In our political system "there is a citizenship of the United States and a citizenship of a state, which are distinct from each other." [16 Wall. 74] The Amendment conferred both upon the American negro; birth being the sole condition of Federal citizenship, birth and residence of state citizenship. "A citizen of the United States, residing in any state of the Union, is a citizen of that state," said Chief Justice Marshall [6 Pet. 762]; "and the Fourteenth Amendment embodies that view," decided Chief Justice Fuller. [143 U. S. 161] Thus the negro when considered as a state citizen is a creation of the Fourteenth Amendment equally as he is when considered as a Federal citizen. One is as much within the purpose of the Amendment as the other. And the powers of the Federal government to render that purpose effective apply equally to both creations.

The main purpose of the Amendment, however, was not completed by simply declaring the negro to be a citizen. "Citizen" in the Constitution, the Courts decide, is used in its political sense; it is not synonymous with "resident" or "inhabitant." [120 U. S. 692; 144 U. S. 292] As Attorney General Bates expressed it, "The Constitution uses the word 'citizen' to express the political quality of the individual in his relations to the Nation." [10 Atty. Gen. Op.] When the nation adopted the Amendment its purpose was to transform by a wholesale act all American negroes into those artificial beings known as American citizens. That purpose was not effected and as-

surely it was never contemplated that it could be effected, by an arbitrary fiat, Let there be five million American citizens! The merciless physical power of war followed by the fiat of the Thirteenth Amendment, had sufficed to transform the five million negroes from property, chattels and slaves into "residents," and "inhabitants," but to further transform them into American citizens, it was necessary that they should be endowed with the characteristic faculties of that political creation—the attributes that distinguish American "citizens" from mere "residents," and "inhabitants." Otherwise negro citizenship would be a metaphysical abstraction. The attributes to which I refer are the fundamental rights and duties of our citizenship—not every right which a citizen may acquire, nor every duty he may assume, but all that are fundamental and indispensable.

The negro's incorporation into the states and nation entitled him *ipso facto* to their civil rights. [Cooley's Const. Law 77] "The Fourteenth Amendment," said Mr Justice Strong, "gave citizenship and the privileges of citizenship to persons of color." [100 U. S. 306] With these rights and privileges I shall not now concern myself. It is not necessary to maintain that education is essential to the constitutional enjoyment of civil rights. The infant, the idiot and the criminal are entitled to their civil rights and the protection thereof, with the wisest and most virtuous in the land.

3 In addition to civil rights there are corresponding civil duties; and the performance of such duties is as fundamental to American citizenship as the enjoyment of such rights.

The duties of American citizens are determined by the social compact under which both states and nation were formed. When men organize themselves into a state they pass *ipso facto* from uncontrolled nature into citizenship. They cease to be an unorganized mob and become an organized citizenry. Organization itself confers citizenship on individuals. They enter into a compact of mutual rights and duties by which they are obligated. Citizenship is simply the political relation between the individual and the body politic. "A body politic," says the constitution of Massachusetts, "is a social compact by

which the whole people covenants with each citizen, and each citizen with the whole people, that all shall be governed by certain laws for the common good." And such is the theory of citizenship in all our republics. [94 U. S. 124] "Citizens are members of the political community to which they belong," said Chief Justice Waite. "They are the people who compose the community, and who, in their associated capacity, have established or submitted themselves to the dominion of a government for the promotion of their general welfare and the protection of their individual as well as their collective rights." [92 U. S. 549]

When a people organize a state, the first step is to surrender a certain portion of their natural rights to be administered by a common government. "When one becomes a member of society he necessarily parts with some rights or privileges which, as an individual not affected by his relations to others, he might retain." [94 U. S. 124] The extent of this concession varies with the form of government. The Declaration of Independence holds that it should be such powers only as are absolutely necessary to secure the reserved, or inalienable, rights of the people. But it matters not what the powers may be, the organization ipso facto creates a compact. "In the formation of a government," said Chief Justice Waite, "the people may confer upon it such powers as they choose" [92 U. S. 549]—it matters not whether the government organized be a despotism, a limited monarchy or a republic—the act of organization raises a contract; the relation of subject and sovereign is created; mutual obligations are entered into; the citizen is bound to obey and support the government's administration of surrendered rights; the government is bound to protect the citizen in the enjoyment of his unsurrendered rights; each is entitled to certain rights and each is bound to respect the other's title. Such is the nature of the social compact under which we live; the duty of the state to support the citizen's rights and the duty of the citizen to support the state's rights.

These essential duties have been defined by the Supreme Court. The duty of the state is "protection," that of the citizen is "allegiance." "Allegiance and protection are, in this

connection, reciprocal obligations. The one is a compensation for the other; allegiance for protection and protection for allegiance." [21 Wall. 166]

The essential duty of the sovereign, therefore, without ability for which he can not be a true sovereign, is protection; the essential duty of the subject, without ability for which he can not be a true subject, is allegiance.

But under our republican system, the citizen sustains a dual role—he is both sovereign and subject. "The great distinction between a monarchy and our republic is, that in the former the monarch is considered as sovereign, and each individual of his nation is subject to him; but in a republic all the citizens, as such, are equal, and no citizen can rightfully exercise any authority over another but by virtue of a power constitutionally given by the whole community, and such authority when exercised is in effect an act of the whole community which forms the body politic. In such governments therefore the sovereignty resides in the great body of the people, but resides in them, not as so many distinct individuals, but in their politic capacity only." [3 Dall. 93] "The political body which, according to our republican institutions, forms the sovereignty which holds the power and conducts the government through its representatives," said Chief Justice Taney, "is what is familiarly called the 'sovereign people,' and every citizen is one of this people and a constituent member of this sovereignty." [19 How. 404] "At the Revolution," explained Chief Justice Jay, "the sovereignty devolved on the people, and they are truly the sovereigns of the country. . . The citizens of America are equal as fellow citizens, and as joint tenants of the sovereignty." [2 Dall. 472]

The duty of allegiance is analyzed by the Courts into two functions, to obey the government and to promote the public welfare. They are the fundamental obligations which the citizen undertakes in the social compact. "Citizens," said Chief Justice Waite, "have submitted themselves to the dominion of a government for the promotion of their general welfare." [92 U. S. 549] In its feudal sense, "allegiance is nothing more than the tie or duty of obedience of a subject to the

sovereign." [3 Pet. 155; 7 Coke 8] But under our republican system it means the "obedience which the individual owes to the *government* . . . in return for the protection he receives." [16 Wall. 154] Or in the words of Mr Justice Miller: "The citizen or subject owes allegiance, which signifies the loyal devotion and support due from him to the *government*." [Miller on Const. 276] Obedience is thus due to *government*. But government is nothing but law; the prime duty of allegiance, therefore, is to obey the laws, as made, interpreted and executed by the government. Simple obedience, however, does not exhaust the citizen's duty of allegiance. The obligation of obedience is entered into "for the common good," said the Massachusetts Constitution; or as Chief Justice Waite put it, "for the promotion of the general welfare and the protection of their collective rights." [92 U. S. 549] Allegiance includes the "obligation of *fidelity*," said Mr Justice Field, "in return for the protection he receives" [16 Wall. 154]; or "loyal devotion" as Mr Justice Miller explained. [Miller on Const. 276] The duty therefore of the citizen as *subject*, may be summarized as obedience to law and promotion of the welfare of the nation.

On the other hand, the duty of protection which the citizen as *sovereign* owes is the duty to govern by just and equal laws. In the ancient case of Calvin, the court announced the law: "As the subject oweth true and faithful allegiance and obedience, so the sovereign is to govern and protect his subjects." [7 Coke 5] Blackstone put it more tersely: "The principal duty of the King is to govern his people according to law." [1 Bl. Com. 233] And this principle is enacted in the guaranty in the Fourteenth Amendment — the "equal protection of the law." But duty to govern is not discharged by merely enacting laws. As the duty to obey includes promotion of public welfare, so also does the duty to govern. The citizen-sovereign must have both intelligence and that public spirit which we denominate patriotism, to devise laws that will not only protect the citizen-subject but promote the highest collective good of the body politic.

Both of these duties are fundamental and essential because they are contractual and imposed by the social compact.

This dual relationship, moreover, being once assumed, can not

be divested by the citizen alone. "The general doctrine," said Mr Justice Story, "is that no persons can by any act of their own, without the consent of their government, put off their allegiance." [3 Pet. 246] And the doctrine is thus stated by Chief Justice Parsons: "Protection and allegiance are reciprocal. The sovereign can not refuse protection to any subject, nor discharge him from his allegiance against his consent. . So on the other hand the subject can never discharge himself from his allegiance." [9 Mass. 461]

The main purpose of the Fourteenth Amendment, therefore must unquestionably be to create negro citizens with *ability* to perform their fundamental duties of allegiance and protection.

"What is a power," said Alexander Hamilton, "but the *ability* or faculty of doing a thing? What is the *ability* to do a thing but the power of employing the means necessary to its execution?" [33 Federalist]

Hence in order to effectuate the main *purpose* of the Amendment the nation must have the power to provide, and must provide negro citizens with "the ability to do" their fundamental and essential duties by any legislative means it deems appropriate.

4 Ability to perform these fundamental and essential duties necessitates in the American citizen intelligence and moral character. He must understand his duties and be willing to discharge them. Understanding comes from intelligence; willingness from moral character. It is immaterial how honest may be a citizen's intention and loyal his will; he can not do *his* duty unless he knows it. He may sin out of ignorance; but *ignorantia legis non excusat*. It is also immaterial how intelligent he may be unless he has the will to do his duty. As a citizen-subject, therefore, he must possess the law-abiding spirit, as well as know the statutes; as a citizen-sovereign, he must govern for the highest public good as well as understand the public interests. The intelligent treason of an Aaron Burr is a breach of the social compact as much as the brutal crime of a negro field hand.

Moreover, intelligence and civic virtue attach to the citizen as a mere citizen and member of the body politic, and not be-

cause he may possess political franchises or be an active participant in the government. Intelligence and civic virtue are as essential to the mother and child of the elector or legislator as to the elector or legislator himself. By the social compact women and children are members of the body politic and as such as well as men they must possess the essential attributes of citizenship.

When the Amendment was adopted the negro was destitute of both intelligence and moral disposition. His mind was what Byron calls a "leafless desert." It had never felt the "magical power of thought." The first gleam of political intelligence had never penetrated its solitude. He had no care to know the laws or desire to obey them. He had no sense of duty to state or nation. He had never been a citizen or voluntary subject. He had never received the nation's protection. He had never borne it allegiance. He had always been a slave. He was venal, corrupt, indifferent to civic responsibilities. He possessed no civic virtue whatever. He broke state and Federal statutes with no thought of violating a duty or committing a crime. In every attribute of citizenship he was as unlike the loyal, obedient, law-respecting citizen our theory of government demands as night was from day. The introduction of such an element was an unparalleled menace to the republic. Never in the history of this or any other free government had such an experiment been attempted—a vast and incongruous horde, as a whole no more fit to be American citizens than their ancestors in the jungles of Africa—millions of human beings arbitrarily labeled "American citizens" and injected into the bodies politic of the states and nation.

In order to effectuate the main purpose of the Amendment and provide these merely nominal citizens with "the ability to do" their fundamental civic duties, the nation must now supply them with intelligence and moral character.

5 Education is an efficient means to this end. In its last analysis education is a means only. If we bear this in mind it will dissipate many illusions. "We have too often forgotten," said Professor Thompson, "that education is a means merely, a very flexible means to any end that we have in view, and that

we must first fix the end by careful reflection and then with equal care *adjust the means to the end.*" Education is the "means by which the powers of the understanding are developed and improved, and knowledge is imparted." [Century Dict.] Property, civil rights, social equality, political franchises — not one is a substitute. The framers of the Amendment as I have shown "first fixed the end by careful reflection" which they "had in view"; now we must "with equal care adjust the means to the end."

Education is an efficient means to provide knowledge. The negro is ignorant of every civic duty. Education can impart such knowledge. However dull his mind the negro can be taught; he can learn the elementary principles of citizenship as a child learns its alphabet.

Education is an efficient means to provide intelligence. Education gives knowledge and knowledge gives understanding and understanding gives intelligence. Something more is necessary to make men intelligent than mere knowledge. They must be taught to think, to reflect, to compare, to devise, to apply — in short they require that other function of education — the development of the intellect, "the means by which the powers of the understanding are developed and improved." [Century Dict.]

Education is an efficient means to provide civic virtue. Moral character, I have shown, is indispensable to an American citizen. Will is a moral attribute. Without will or disposition to discharge his fundamental duties, the citizen is as disqualified as though he were ignorant of such duties. There is a moral education as well as an intellectual; an education of character as well as of mind. Education is a means to each. Education is training, and "in its broadest sense," said the Supreme Court of Tennessee, "comprehends the whole course of training, moral, intellectual and physical." [6 Heisk. 395] So the Supreme Court of Massachusetts: "Education is a broad and comprehensive term. It has been defined as the process of developing and training the powers and capabilities of human beings. . Education may be particularly directed to either

the mental, moral or physical powers and faculties, but in its broadest and best sense it relates to them all." [145 Mass. 146] The want of will to do the true duty of a citizen is a moral defect, and requires moral education. A citizen without moral character is an outlaw, a rebel, a traitor. The only remedy is by the inculcation of principles of civic virtue, education directed toward the moral side of his character. "The attainment of knowledge," said Webster, "does not comprise all which is contained in the larger term of education. The feelings are to be disciplined; the passions are to be restrained; true and worthy motives are to be inspired; a profound religious feeling is to be instilled, and pure morality inculcated, under all circumstances. All this is comprised in education." A citizen with this training will desire to obey the law; without it he is a criminal at heart. It was for this reason that Webster advocated education "as a wise and liberal system of police. . . By general instruction, we seek, as far as possible, to purify the whole moral atmosphere; to keep good sentiments uppermost, and to turn the strong current of feeling and opinion, as well as the censures of the law and the denunciations of religion, against immorality and crime. We hope for a security beyond the law, and above the law, in the prevalence of an enlightened and well principled moral sentiment. . . And knowing that our government rests directly on the public will, in order that we may preserve it we endeavor to give a safe and proper direction to that public will. We do not, indeed, expect all men to be philosophers or statesmen; but we confidently trust, and our expectation of the duration of our system of government rests on that trust, that, by the diffusion of general knowledge and good and virtuous sentiments, the political fabric may be secure, as well against open violence and overthrow, as against the slow, but sure, undermining of licentiousness." With moral education, obedience to the law becomes instinctive. In the Puritan colonies of New England, Bancroft claimed, "one could dwell from year to year and not see a drunkard, nor hear an oath, nor meet a beggar." The famous Ordinance of 1787 made "religion and morality" the

main objects for which "education shall forever be encouraged." Moral education will eradicate the criminal instinct and create the law-abiding spirit of good citizenship as surely as intellectual education will banish ignorance. Many negroes of the South may be moral perverts as is now studiously asserted, to whom moral education is of little benefit; just as many negro dullards are beyond the reach of the most benign intellectual culture; but moral education always has been and always will be successful in the great majority of cases, and beyond any other known means. Moral education, therefore, is an efficient means to provide the civic virtue of the citizen.

Education is an efficient means to provide patriotism or devotion to the public welfare. An American citizen requires not only intelligence and civic virtue, but that higher public spirit — patriotism — to discharge his duties to the nation. To promote the public welfare, whether as citizen-subject or citizen-sovereign, he must have political intelligence and political intelligence requires political education, and political education is the most efficient means to inspire patriotism. Where obedience requires mere knowledge of statutes, public welfare requires knowledge of the social compact and of the intricate political relations of the citizen to the state. Where obedience requires a mere law-abiding spirit, patriotism demands an active and self-sacrificing devotion to the public good. There are hereditary patriots, like the ancient Greeks, the Scotch Highlanders or the Swiss, who by heredity possess the patriotic public spirit; but the emancipated slave is not such. He has never felt his identity with the republic. He is utterly ignorant of public duties. He must be enthused with the spirit of patriotism, and education alone can accomplish it. "There is great need of educated men in our public life," said Ex-president Cleveland, "but it is the need of *educated men with patriotism*. . . Patriotism has to do with the moral sense. It reverences traditions, it loves ideas, it cherishes the names and the deeds of heroes. . . The sentiment of our fathers, made up of their patriotic intentions, their sincere beliefs, their homely impulses and their noble aspirations, entered into the government they established; and unless

it is constantly supported and guarded by a sentiment as pure as theirs, our scheme of popular government will fail. Another and a different plan may take its place; but this which we hold in sacred trust, as it originated in patriotism, is only fitted for patriotic and honest uses and purposes, and can only be administered in its integrity and intended beneficence by honest and patriotic men. . Nor will it suffice that the factors which compose this sentiment have a sluggish existence in our minds as articles of an idle faith which we are willing perfunctorily to profess. They must be *cultivated as motive principles*, stimulating us to effort in the cause of good government, and constantly warning us against the danger and dishonor of faithlessness to the sacred cause we have in charge."

Education is an efficient means to maintain a high standard of American citizenship. As I have said, the true glory of this republic is its constitutional government. But it is axiomatic that our governments, state and national, must stand or fall by the character of their citizens. The standard of American citizenship is the average of individual citizenship. The power, dignity, influence and civilization of the nation depend, therefore, upon the average citizen. The higher his character the higher the state, while a declining standard is the surest forerunner of the nation's decay. The highest civilization known to history was due to the select citizenship of the Greek republics. In Athens descendants of foreigners could not become citizens until the fourth generation. They were subjected to three generations of political education before they were deemed fit to assimilate with the body politic. The result was the most enlightened, homogeneous and efficient democracy ever known — "the eye of Greece, mother of arts and eloquence." "The average Athenian citizen," said Freeman, "was in political intelligence above the average English member of Parliament. It was this concentration of all power in an aggregate of which every citizen formed a part which is the distinguishing feature of the true Greek democracy." A people without political intelligence is incapable of self-government according to the American standard. Ignorant of their duties as citizen-subjects, they degen-

erate into mob rule; ignorant of their duties as citizen-sovereigns, they govern as tyrants. Nothing can be more inconsistent with our political institutions than an ignorant citizenry. If we expect "to be ignorant and free," we expect, as Jefferson said, "what never was and never will be." Witness the mobs, riots, lynchings and burnings that disgrace our states North and South. What is the cause? In its last analysis, the ignorant and vicious character of the guilty citizens. Every citizen who lynches or burns, commits murder. He breaks the most sacred law of God and man. He perpetrates the most heinous offence against civic duties. He outrages every obligation of allegiance and protection. The crime is proof either of the inconceivable ignorance of the guilty citizens, or of their intelligent yet vicious moral character; whichever it is, the lynchings and burnings themselves are self-evident and indisputable proof of the deplorable, debauched and criminal standards of the local citizenry.

It is a primary obligation of the nation, therefore, to maintain the highest possible standard of citizenship. If we lower it we are false to our ideals and history; recreant to our rights and duties; unfaithful to the sacred trusts imposed upon us by our patriotic ancestors. Eight million negroes have been admitted to American citizenship since the Amendment was adopted, the majority of them ignorant, vicious, indescribably poor, and notoriously unfit for the franchise. Is it conceivable that the nation intended to thus admit the negro wholesale and then permit him to remain a constantly increasing menace to our civic standards and a flaunting disgrace to every republican ideal? A thousand times, no! It is the plain purpose of the Amendment that the nation shall elevate the negro, and that, too, with all possible expedition, to the full standard of American citizenship. Such being the nation's power, it should pass as axiomatic that education is the only efficient means of exercising it. Education means elevation when directed to a higher standard. The negro's mind must be enlightened; his character improved. Intellectual education is the only efficient means for the former; moral education for the latter. The education of centuries has made the Puritan and the Anglo-Saxon, and given them their character and civic standards.

Education can in time create like qualities in the negro. The first care of the colonies was public schools. Lowell said of Puritan New England: "It was in making education not only common to all, but in some sense compulsory on all, that the destiny of the free republics of America was practically settled." The education of the negro will be slow. The Anglo-American is the product of a steady educational evolution in intelligence and character for two thousand years. A total change of mind and morals has been effected by time and education in every people since history began. Our oldest civilization is African. The present Egyptian fellah shows the degradation of a declining race. The ancient Roman looked with contempt upon the Celts of Britain; but his disdain was no greater than that of the Irish boss as he drives his gang of Italian laborers through the streets of New York. Descendants of Greece are flower peddlers in our Metropolis; while our all powerful German bankers and merchants come from the Teutonic savages whom Caesar despised. Why may not the African's day of intellectual superiority return again? Another cycle, not so long as that which has degraded him from the citizenship of a Rameses or Ptolemy, may yet restore him to intellectual and moral equality with other races. But whether the time be short or long, it is the solemn obligation of the nation to the negro as well as to the other members of the body politic, to carry out the purpose of the Amendment by educating every negro citizen up to the full standard of American citizenship, so far as possible and with all expedition.

Education, finally, is an efficient means to maintain a homogeneous American citizenry. It was never contemplated that we should be a heterogeneous people. In the first Colonies, not only was citizenship confined to one race and one political faith, but to one religion. Church membership was an essential condition of citizenship in many parts of New England. And since the Amendment, the need for homogeneity is more imperative than ever. According to President Hayes, now "the great task is, how to fuse a people differing so widely in race and nationality into one harmonious whole." It is not to be

assumed that the framers of the Amendment intended to incorporate five million negro citizens without eventually assimilating them to the other members of the body politic. Physical amalgamation of the races they never contemplated. That theory has always been revolting, has long been discarded, and is now repugnant to both whites and blacks. The only assimilation that can be effected is of intellect and character. Education is the only means that can effect it. It can change intellect and character and elevate both. Generations may be required to work the metamorphosis; still, education in the end will accomplish it—education up to the full standard of American citizenship. "The tendency of education," said President Hayes, "is to *assimilate and fuse together* the various elements of our population, to promote unity, harmony and general good will in our American society." Therefore, Congress has power, in order to effectuate the full purpose of the Amendment, to educate our negro citizens until they are homogeneous in mind and character with the other members of the body politic.

Such is the implied power of the Fourteenth Amendment. I maintain it is ample to educate every illiterate negro citizen. It is moreover a continuing power. It is a power to educate not only the five million manumitted and citizenized negroes of 1868, but all illiterate negro citizens within our boundaries so long as the Amendment is unrepealed and the republic endures.

(4) The nation has implied power to educate its illiterate negro voters as a corollary to the Fifteenth Amendment.

This Amendment is supplementary to the Fourteenth. "It was urged that a race of men distinctively marked as was the negro, living in the midst of another and dominant race, could never be fully secured in their person and property without the right of suffrage. Hence the Fifteenth Amendment. . . The negro having by the Fourteenth Amendment been declared to be a citizen of the United States, is thus made a voter in every state of the Union." [16 Wall. 71] Its main purpose, therefore, was to give the emancipated and citizenized negro the right to vote on the same terms as the white man. [92 U. S. 217]

The second section empowers Congress to enforce this purpose by appropriate legislation. The choice of legislative means is vested exclusively in Congress. Therefore Congress has power to carry out that purpose by any means it deems effective. The sole question is whether education is an appropriate means of rendering effective the elective franchise thus conferred. If it is, then Congress has power, in its discretion, to adopt it.

Education is necessary to enable the ignorant negro to vote. "A vote," says our Court of Appeals, "is but the expression of the will of the voter" [27 N. Y. 57]; "a formal expression of will or opinion" [Standard Dict.]; "the formal expression of a will, preference, wish or choice" [Century Dict.]. Without intelligence, a voter can not express his "will," "preference," "wish" or "choice." In no true sense is he a voter. The exercise of the right of suffrage involves more than the mere mechanical act of depositing a ballot. An election is a selection or choice; "a deliberate act of choice" [Century Dict.]; "a choice between alternatives" [Standard Dict.]. Hence a vote at an election must be a deliberate expression of opinion between alternatives, or it is no vote. A person who has not the ability to cast such a vote is no voter.

A voter, moreover, must possess the moral disposition to vote for the best men and measures according to his intelligence. He must possess moral character to cast his vote in accordance with the dictates of his intelligent opinion.

Voting, therefore, is an act of intelligence and will, of a higher order, too, than is required for the elementary duties of citizenship. Political intelligence and morality are required—thought, judgment, discretion, knowledge of men, knowledge of affairs of state, understanding of the measures to be voted upon, sense of the effect of the vote on the issues involved, fixedness of political principles and purposes, and moral determination to give effect to them for the best interest of the state. Hence a voter must be provided with such intelligence and civic virtue before he is fit to exercise his suffrage.

Webster laid down these principles: "That the exercise of the elective franchise is a social duty of as solemn a nature as man

can be called to perform; that a man may not innocently trifle with his vote; that every free elector is a trustee as well for others as himself; and that every man and every measure he supports has an important bearing on the interests of others as well as on his own."

The ignorant negro emerging from barbarism and bondage did not possess a single intellectual or moral qualification for suffrage. He was no more fit to exercise its inestimable franchises than the idiot, the insane or the criminal.

But the purpose of the Amendment was assuredly not completed by a simple fiat, Let the negro vote! Its framers could not have intended to subject the republic to the permanent domination of an ignorant and vicious negro electorate. The gift of the franchise to grantees incapable of exercising it, except at the constantly increasing peril of the grantor, would be an inconceivable act of folly to attribute to those illustrious statesmen. We must assume, therefore, that the purpose of the Amendment is to provide intelligence and moral character to the illiterate negro voter as much as to guarantee him equality of suffrage. And if this implied power should equal or even exceed in relative importance the original grant itself, it would find precedents in many other constitutional franchises.

I have already proved that education is the only efficient means of providing intelligence and moral character. It follows, therefore, that the Fifteenth Amendment, in creating at one stroke our ignorant negro electorate, empowered Congress to educate them to cast their votes with intelligence and patriotism. "Citizenship and the right to vote" said President Hayes, "were conferred upon the colored people by the government and people of the United States. It is therefore the sacred duty, as it is the highest interest, of the United States to see that these new citizens and voters are fitted by education for the grave responsibility that has been cast upon them."

Such is the sovereign purpose of the Fifteenth Amendment. It empowered the nation to educate every illiterate negro voter when it was adopted in 1870, and it confers power to continue to educate so long as it stands unrepealed and there are illiterate negro voters in the republic.

(5) The nation has implied power to educate its illiterate citizens, white and black, under the Ordinance of 1787.

I am not aware that this suggestion has ever before been made, but it is feasible and its constitutionality unimpeachable. While the convention was drafting the present Constitution in Philadelphia, Congress was framing in New York the famous Ordinance for the government of the Northwest Territory. Members of Congress were also members of the convention. "There was a perfect concurrence of opinion between these two bodies," said Webster. While they were both in session the Constitutional Convention rejected a proposition to make education an express power of government; but at the same time the Congress enacted the Northwest Ordinance which provides: "Religion, morality and knowledge, being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged."

This Ordinance by its own terms was declared to be a solemn "*compact* between the original states and the people and states in the Territory," and to "forever remain unalterable unless by common consent." It is reasonable to assume that express power to educate was omitted from the Constitution on the understanding that it should be embodied in the Ordinance, and that thereupon the Ordinance should be embodied in the Constitution, for that identical course was pursued. Simultaneously with the enactment of the Ordinance by Congress, the Constitutional Convention inserted this clause in the constitution it was then drafting: "Article VI. All . . . *engagements* entered into before the adoption of this Constitution shall be valid against the United States under this Constitution, as under the Confederation." "Thus this Ordinance," says the Supreme Court, "the most solemn of all *engagements*, has become a part of the Constitution and is valid to protect and forever secure" its rights "to the inhabitants of every territory to which it applies." [14 Pet. 417] By successive acts, Congress has "applied" the Ordinance and its educational provision to every foot of territory in the Union except the original thirteen states; hence, what the Court has called "this most

solemn and mutual compact, this engagement of the old Congress — embodied in the Constitution itself" [14 Pet. 417], and its specific provision that "schools and the means of education shall forever be encouraged," are today constitutional obligations and binding upon the nation in all that territory.

I am of opinion, moreover, that a constitutional obligation under the Ordinance rests upon the whole nation to "encourage education." As the Ordinance is declaratory of preexisting fundamental principles, the nation may be considered as bound to "encourage education" in every foot of territory it governs. The declaration that "religion, morality and knowledge" are "necessary to good government and the happiness of mankind," and that "schools and the means of education shall forever be encouraged," was not merely a "compact" for the sole benefit of the Northwest Territory; it was also a Declaration as solemn as that of Independence itself, of principles which underlie all our institutions. "This Ordinance," said Webster, "did that which was not so common, and which is not even now universal. That is, it set forth and declared it to be a high and binding duty of government itself to support schools and advance the means of education on the plain reason that religion, morality and knowledge are necessary to good government and to the happiness of mankind." These were fundamental principles of the original states, before they were extended to the new. Aside from any constitutional obligation, they govern the conduct of the nation today in the same way as do the fundamental principles of the Declaration of Independence. Of the controlling moral force of the latter Mr Justice Brewer said: "While such Declaration of principles may not have the force of organic law, or be made the basis of judicial decision as to the limits of right and duty, and while in all cases reference must be had to the organic law of the nation for such limits, yet the latter is but the body and the letter, of which the former is the thought and the spirit; and it is always safe to read the letter of the Constitution in the spirit of the Declaration of Independence." [165 U. S. 160] They form what Mr Justice Gray called, "the general spirit of the Constitution from which Congress derives all its powers."

[136 U. S. 44] I am of opinion therefore the great principle that "education shall forever be encouraged" is as fundamental as the aphorisms of the Declaration, and that a primary function of the Ordinance is to declare this principle and embody it in the Constitution so that it shall forever remain a moral as well as constitutional obligation of the nation.

There are but two ways in which the nation can "encourage education"; by lending pecuniary aid to state schools and by establishing and maintaining schools of its own. The Ordinance confers no *express* power to do either, but it imposes an *express* duty; and in the performance of that obligation Congress may imply ample power to vote aid to schools of states or to establish schools of its own, if necessary to educate illiterate Federal citizens. According to all rules of legal construction also, it *must* do one or the other; just as it must make laws, appropriate moneys, provide national defence, or perform any other constitutional obligation.

(6) The nation, finally, has implied power to educate its illiterate citizens, white and black, as a corollary to all these powers combined.

Even if any one of the four powers just considered should alone prove insufficient, the court would uphold the sovereign efficiency of all combined. This far reaching principle was first distinctly announced when the court sustained the Federal acquisition of the battlefield of Gettysburg. A power claimed by Congress, said the court in the Gettysburg case, "need not be plainly and unmistakably deduced from any one of the particularly specified powers. Any number of powers may be grouped together, and an inference from them all may be drawn that the power claimed has been conferred." [160 U. S. 683]

Thus we discover these great constitutional powers — streams of national sovereignty pouring forth from the fountains of the Constitution, irresistibly potent to set in motion the tremendous machinery of the nation, to educate every illiterate American to perform all the functions and duties of American citizenship.

III Such being the sovereign powers of the nation, I call upon it tonight to perform its full and bounden obligations. Is it conceivable that they can be less than the education of every illiterate citizen in the body politic?

(1) Yet it is urged by many that the nation would perform its full duty if it should repeal the Fifteenth Amendment. The negro voter, literate and illiterate, would be eliminated, but how would that solve the problem? The negro would still be a citizen, still illiterate, still vicious, and still an increasing menace to the states and nation. The repeal of the Fifteenth Amendment is impracticable. The Amendment is a revolutionary measure, and revolutions as Wendell Phillips said never go backwards. The Thirteenth emancipated the negro, the Fourteenth citizenized him, the Fifteenth guaranteed his suffrage; it is one step only in the irresistible, onward movement of this Republic to diffuse power equally among all its people. "The sun can as easily be turned backward in its course as can one particle of that power." [Mann on Ed. 149]

(2) It is also persistently urged that the nation would perform its full duty if it should prohibit the South from further disfranchisement of the negro, under the following provision of the Fourteenth Amendment: "When the right to vote . . . is denied to any of the male members of such state, being twenty one years of age and citizens of the United States, or in any way abridged, . . . the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty one years of age in such state."

It is urged that gross disparity exists between the votes of the North and South, that the cause is negro disfranchisement, that the Fourteenth Amendment empowers Congress to penalize the South therefor by reducing its Congressmen and Electors, and that such penalty will prevent the further disfranchisement of ignorant negroes.

1 Let us first consider the question of disparity. Take the Congressional vote at the last Presidential election of five represen-

tative Northern and Southern states. Maryland's vote, for example, for each Congressman averaged 44,085 and Ohio's 49,522; Missouri's 42,728 and Illinois' 45,275; Kentucky's 42,626 and New York's 41,826; North Carolina's 29,267 and Pennsylvania's 36,662; Virginia's 26,409 and Massachusetts' 29,628. Here is assuredly no startling disparity.

But the North and South are not the whole country. Compare also the East and West. Rhode Island's vote, for instance, was 28,284 and South Dakota's 96,131; Vermont's 28,108 and Colorado's 92,167; Maine's 26,430 and Utah's 84,842. If therefore Congress should penalize the South for disparity alone, when contrasted with the East, should it not also penalize the East for its glaring disparity when contrasted with the West?

It is true that in the six Atlantic and Gulf States, where the ignorant negro vote was greatest, the congressional vote was least; Alabama's was 17,731; Florida's 12,677; Georgia's 11,155; Louisiana's 9770; Mississippi's 7388, and South Carolina's 7259. Still, the disparity between these states and the East is less than that between the East and the West. For instance, Rhode Island's vote is 1.59 times as great as Alabama's, but South Dakota's is 3.39 times as great as Rhode Island's. Vermont's is 2.22 times as great as Florida's, but Utah's is 3.01 times as great as Vermont's. Maine's is 2.36 times as great as Georgia's, but Colorado's is 3.48 times as great as Maine's.

Granting, however, that disfranchisement is the evil, and disparity only establishes a basis for the penalty, let us remember there may be disfranchisement of whites as well as blacks. There is no such limitation in the Amendment. Where does this lead? Outside of the South many states disfranchise voters and five have educational qualifications. In Massachusetts in 1900 five per cent of the voters were disfranchised because of illiteracy, thus withdrawing from representation 142,000 of the inhabitants; in Connecticut seven per cent, withdrawing 57,000; and in California six per cent, withdrawing 100,000. Massachusetts and California would thus lose one Congressman each by a general penalizing statute.

2 Aside from questions of polity, I maintain that a penalizing statute would be unconstitutional.

And first, I observe that the Fourteenth Amendment was intended solely for the benefit and protection of the negro race. Upon its face the penalizing provision applies to whites as well as blacks. But as I have already stated, the three War Amendments can not be understood or rationally interpreted without keeping in mind their history and design. [16 Wall. 67] "The most cursory glance at these Articles discloses a unity of purpose," said Mr Justice Miller; "and no one can fail to be impressed with the one prevading purpose found in them all, lying at the foundation of each, and without which none of them would have even been suggested. We mean the freedom of the slave race, the security and firm establishment of that freedom, and the protection of the newly made freeman and citizen from the oppressions of those who had formerly exercised unlimited dominion over him. It is true that only the Fifteenth Amendment, in terms, mentions the negro by speaking of his color and his slavery. But it is just as true that each of the other Articles was addressed to the grievances of that race and designed to remedy them as the Fifteenth." [16 Wall. 67-72] To the same effect Mr Justice Strong said: "The Fourteenth Amendment is one of a series of constitutional provisions having a common purpose. . The true spirit and meaning of the Amendments . . can not be understood without keeping in view the history of the times when they were adopted, and the general objects they plainly sought to accomplish. At the time they were incorporated into the Constitution it required little knowledge of human nature to anticipate that those who had long been regarded as an inferior and subject race would, when suddenly raised to the rank of citizenship, be looked upon with jealousy and positive dislike. . Discriminations against them had been habitual. . The colored race, as a race, was abject and ignorant, and in that condition was unfitted to command the respect of those who had superior intelligence. Their training had left them mere children, and as such they needed protection. . *It was in view of these considerations that the Fourteenth Amendment was framed and adopted.*" [100 U. S. 306]

And the Supreme Court in the Slaughter House Cases used this significant language and quoted and approved it again in the Strauder case: "*We doubt very much whether any action of a State not directed by way of discrimination against the negroes, as a class . . . will ever be held to come within the purview of this provision. [14th Amendment] It is so clearly a provision for that race and that emergency that a strong case would be necessary for its application to any other.*" [16 Wall. 81; 100 U. S. 307]

The penalizing clause, especially, was designed to meet the suffrage phase of the negro question. It was intended to protect the negro's vote and to cure the evils of overrepresentation of the Southern whites which had existed under the old Constitution. One of the earliest disputes in the republic was over the representation of slaves in Congress. They were counted in the census but not allowed to vote. The Constitutional Convention inserted the provision concerning the apportionment of "direct taxes and representatives" solely to settle the "share of representation claimed by Southern States on account of their slave population." [102 U. S. 596] The compromise embodied in Article I, Section 2 of the Constitution was that the basis of representation should be the whole number of free persons plus three fifths of the slaves. This became a long standing grievance of the Northern States; it gave the Southerner more influence in the national council than the Northerner; it made five citizens in the South equal to eight in the North. When the Thirteenth Amendment was passed, it was seen that the previous difficulty and inequality would be aggravated, if, as was probable, the suffrage should still be confined to the white race in the South; hence the second section of the Fourteenth Amendment. In the words of Mr Justice Gray: "Slavery having been abolished, and persons formerly held as slaves made citizens, this clause fixing the apportionment of representatives has abrogated so much of the corresponding clause of the original constitution as counted only three fifths of such persons." [112 U. S. 102] That section did not purport to enfranchise the emancipated negroes, nor assume that they had the right to vote. The clear intention of the

Fourteenth Amendment was to leave the control of the elective franchise where it had always been, with the states. States were not prohibited from disfranchising negroes on account of color alone. Before the adoption of the Fifteenth Amendment, said Chief Justice Waite, "it was as much within the power of a state to exclude citizens of the United States from voting on account of race, etc., as it was on account of age, property or education." [92 U. S. 217] And it was foreseen by the authors of the Fourteenth Amendment that, owing to the jealousy and contempt of the white citizens for their former slaves, the privilege of voting would be denied them. In that case the old inequality of representation between North and South would be increased. The slaves having been converted into free men, they were counted in full in the basis of representation, instead of three fifths of them. The suffrage being confined to the white race as before, it follows that five Southern voters — assuming the white and black populations to be practically equal — as in the South Atlantic and Gulf States — would have as much influence in the national councils as ten Northern voters, instead of eight as formerly. The Fourteenth Amendment remedied this injustice by providing that in case any State should deny its negro citizens the right to vote, its congressional representation should be proportionately reduced. It is true, the terms of the provision are broad enough to make disfranchisement of any race for any cause, except sex, minority, rebellion and crime, a ground for inflicting the penalty. Neither the Thirteenth nor Fourteenth Amendment speaks in terms of the negro, yet they refer to him alone. [16 Wall. 72] We must therefore follow the rule of construction laid down by the Supreme Court; the Amendment must be treated historically, and its "true meaning can not be safely and rationally solved without a reference to that history." [16 Wall. 67, 71]

The provision, therefore, was inserted for a special occasion, to remedy the overrepresentation of the Southern whites, an evil that threatened to become worse upon the emancipation of the slaves. And the penalizing provision must be construed in view of that occasion and that purpose. It follows, therefore, that disfranchisement on account of *race* can be the only legitimate

occasion for reducing Congressional representation. Nothing could be more foreign to the purposes of the Fourteenth Amendment than the proposition now often advanced, that Congress can penalize a State for disfranchising paupers, idiots, the ignorant or any other class not specified in the Amendment. The supreme purpose of all three Amendments was to protect the negro race against discrimination. If there is no negro discrimination, there is no occasion to invoke the Amendments. "It was in view of these considerations," said Mr Justice Strong, "the Fourteenth Amendment was framed and adopted." [100 U. S. 306] It is true, the provisions are against *racial* discrimination in general, and thus protect the white race, as well as the black, but there must be *racial*, and no other, discrimination to violate the provisions of the Amendment. Massachusetts as well as Louisiana, California equally with Virginia, can disfranchise all their criminals, paupers, idiots, or illiterates for instance, without incurring the penalty of Congressional reduction, now, just as they did before the Amendment, provided the disfranchisement is applied to all *races* alike. The states have always possessed such power; and it is preposterous to contend that the Amendment was intended to inflict a penalty for this or any other historic, just and impartial qualification of suffrage. I maintain, therefore, that the Amendment is aimed at *racial* discrimination, and that alone.

3 The power to *reduce* representation must not be confused with the original power to *apportion* representatives. The apportionment is made first, by a separate provision of the Constitution; the reduction is made from that apportionment when the right to vote is denied. The Fourteenth Amendment does not authorize Congress to apportion representatives according to the vote cast, as many seem to think. It is immaterial how many state conventions resolve to "hold fast to the doctrine of equity everywhere in the exercise of the elective franchise, maintaining that justice requires any state excluding *any of its citizens* from the ballot to be proportionately reduced in its representation in the Electoral College and the lower house of the national Congress." [Ohio Rep. Platform. 1903] Such is

not the law. "Representatives," says the Constitution, "shall be apportioned among the States *according to their respective numbers.*" These "numbers" the Supreme Court has decided are the "census" [23 Wall. 347], or as Chief Justice Fuller more recently expressed it, "the population as ascertained by the census." [158 U. S. 618] Therefore, any attempt to substitute the *voting population* for the *census population* as a basis for apportioning representatives would be unconstitutional and void.

4 My principal argument, however, against a penalizing statute is that Congress no longer possesses the power to penalize states under the Fourteenth Amendment. The penalizing clause was abrogated thirty-three years ago when the Fifteenth Amendment was adopted. The power of Congress to reduce is in the nature of a penalty. It comes after the apportionment of Congressmen and Electors, and is a reduction therefrom for cause. It therefore must be strictly construed. The conditions upon which Congress can exercise its jurisdiction must be indisputably established. "Jurisdiction is as necessary to valid legislative action as to valid judicial action." [11 Wall. 430; 114 U. S. 208]

The jurisdiction of Congress depends solely upon the conditions precedent laid down in the Amendment; and should it assume to penalize the states irrespective of such precedents, its act, as Mr Justice Swayne said, would be "ultra vires and void." [7 Wall. 444]

The jurisdictional facts which must exist before Congress can exercise its power to reduce representation are, that the state has denied the right to vote to citizens otherwise duly qualified; and that it has denied the right solely on account of the *race* of the disfranchised persons. These facts must exist; they can not be assumed by Congress, as many seem to think. The question whether Congress has acquired jurisdiction is judicial; it involves the construction of a constitutional amendment, and is peculiarly within the cognizance of the courts. Any attempt of Congress to exercise the power of reduction, when in fact the state has not discriminated against legal

voters on account of *race*, would be unconstitutional, and as such would be promptly set aside by the courts.

5 The first condition to establishing these jurisdictional facts is that denial of suffrage and racial discrimination must be the corporate acts of a state. The unofficial acts of individuals afford no ground for congressional action. "The provisions of the Fourteenth Amendment of the Constitution," said Mr Justice Strong, "all have reference to state action exclusively, and not to any action of private individuals." [100 U. S. 318] "They have reference to actions of the political body denominated a state, by whatever instruments or in whatever modes that action may be taken. A state acts by its legislative, its executive or its judicial authorities. It can act in no other way. The constitutional provision, therefore, must mean that no agency of the state, or of the officers or agents by whom its powers are exerted, shall deny . . .". [100 U. S. 346-47]

Although the Supreme Court has thus authoritatively announced these principles, the erroneous belief is prevalent that the unofficial action of individuals will satisfy the requirement of the Amendment. Many even gravely contend that when negro citizens are deprived of their votes by mob violence, Congress may reduce a State's representation; in short, that when the right to vote is denied in fact, it is immaterial how it is denied, or by whom. They would penalize a state, although its laws expressly forbid discrimination and its officials strive to protect the voter. Such assuredly is not the provision of the Amendment. The crime of a private individual is not the corporate act of a state; nor is mob violence the action of any body politic. The remedy of a voter deprived of his right by force or fraud of private individuals, whether acting singly or collectively, is by appeal to the executive or judicial officers of the state whose law has been broken, and not by appeal to Congress to reduce the state's representation.

This also was the substance of the decisions in the Civil Rights cases. There the Court held that civil rights were guaranteed by the Fourteenth Amendment only against "state aggression," and that such rights "can not be impaired by the wrongful acts

of individuals, unsupported by state authority in the shape of laws, customs or judicial or executive proceedings. The wrongful act of an individual, unsupported by any such authority, is *simply a private wrong or a crime of that individual*; an invasion of the rights of the injured party, it is true, whether it affects his person, his property or his reputation; *but if not sanctioned in some way by the state, or not done under state authority, his rights remain in full force, and may presumably be vindicated by resort to the laws of the state for redress.* An individual can not deprive a man of his right to vote . . . *he may by force or fraud interfere with the enjoyment of the right in a particular case*; he may commit an assault against the person, or commit murder, or use ruffian violence at the polls, or slander the good name of a fellow citizen; *but unless protected in these wrongful acts by some shield of state law or state authority, he can not destroy or injure the right*; he will only render himself amenable to satisfaction or punishment; and amenable therefor to the laws of the state where the wrongful acts are committed." [109 U. S. 17-18]

In the same case Mr Justice Bradley said: "It is state action of a particular character that is prohibited. Individual invasion of individual rights is not the subject-matter of the Amendment." [109 U. S. 11]

In declaring the conspiracy provisions of the Civil Rights bill unconstitutional, Mr Justice Woods said: "The language of the Fourteenth Amendment does not leave this subject in doubt. When the state has been guilty of no violation of its provisions . . . when on the contrary the laws of the state, as enacted by its legislative and construed by its judicial and administered by its executive departments, recognize and protect the rights of all persons, *the Amendment imposes no duty and confers no power on Congress.* . . . As therefore the section of the law under consideration is directed exclusively against the action of private persons, without reference to the laws of the state or their administration by her officers, we are clear in the opinion that it is not warranted by any clause in the Fourteenth Amendment." [106 U. S. 639-40]

It thus appears conclusively that the first condition to establishing jurisdictional facts must be the corporate act of a state.

6 The second condition is that such corporate act must be effective. There must be *actual*, not *theoretical*, discrimination on account of race. In other words there must be a valid act of the state to that effect, *legislative*, *executive* or *judicial*, or Congress can not penalize the state. The Amendment says when "the right to vote is denied or abridged," the representation shall be reduced. A *void* attempt by statute or a "grandfather clause" in a constitution, for instance, to deny or abridge does not comply with the condition. A state act not only must purport to, but must actually, discriminate, before Congress can penalize.

7 The Fifteenth Amendment has made the first condition impossible. During the few years between the adoption of the Fourteenth and Fifteenth Amendments a state might have passed a valid law or taken valid executive or judicial action denying negroes the right to vote on account of their race; but now, says the Supreme Court, it is impossible. [92 U. S. 217] A law for instance purporting to so discriminate is void; not voidable, but void *ab initio*; and a void law is no law. [1 Cr. 137]

Congress has nothing to do when a state law violates the Fifteenth Amendment; the constitutional prohibition operates *proprio vigore*; and it requires but the judgment of a court to pronounce the law a nullity. Said Mr Justice Bradley at Circuit: "Congress can not with any propriety or to any good purpose, pass laws forbidding the state legislature to deny or abridge the right, nor declaring void any state legislation adopted for that end. The prohibition is already in the constitutional amendment, and laws in violation of it are absolutely void by virtue of that prohibition. So far as relates to rendering null and void the obnoxious law, it is done already. . . When the (constitutional) provision is violated by the passage of an obnoxious law, such law is clearly void and all acts done under it will be trespasses." [1 Woods 323-27]

The Fifteenth Amendment has also made the second condition impossible. There can be no actual discrimination. The negro

can not be disfranchised by a void state suffrage law any more than by the Dingley Tariff. "An unconstitutional act is not a law," said Mr Justice Field, "it is as inoperative as though it had never been passed." [118 U. S. 442]

If the negro does not cast his vote, it is his own folly, timidity, or indifference. He must be presumed to know the law. He can enforce his vote. He can compel the poll clerks to accept it. He can sue them for damages; as has been done many times in both the North and South; as has been recently done in South Carolina [179 U. S. 58], and in Tennessee [185 U. S. 487]; and as is now being done in Mississippi and Alabama. He has today every remedy for illegal disfranchisement that white citizens have or ever have had since the government was founded. And if notwithstanding, he loses his vote, *it is his own act or fault and not the fault or effect of any corporate action of a state.*

State discrimination being thus impossible, both conditions precedent are impossible, and Congress can not exert the power to penalize. Any law of Congress attempting to do so would be palpably unconstitutional and would be as promptly set aside by the Supreme Court as were the Reconstruction Acts and Civil Rights bills.

(3) Since the nation can neither repeal the Fifteenth Amendment nor enforce negro suffrage under the Fourteenth, what solution of the negro problem remains? Endowed with omnipotent sovereignty to educate the people, I maintain that education and education alone is the nation's supreme obligation. Behold the serried ranks of a stupendous army, greater than Xerxes or Alexander or Tamerlane ever led to battle, six million illiterate Americans, already conquerors of our outposts and marching straight against the strongholds of the nation! Before it fortresses crumble and citadels fall down like the walls of Jericho! Nothing on earth can oppose it but the dynamic force of education! That power is in your hands; if you would not call down the maledictions of the civilized world, if you would not commit a crime against humanity itself, then use it and drive from the land illiteracy and its hosts of evil!

So tonight I plead for education.

I plead for education that Washington called "an object of primary importance" to the republic.

I plead for education that Jefferson declared necessary to every state in the Union.

I plead for education that Webster argued was the foundation of all our institutions.

I plead for education that Sumner maintained was essential to national defence.

I plead for education that Garfield demanded as the complement of the Rebellion.

I plead for education for all — the fifteen million voters and the eighty million citizens.

I plead for education that shall be elementary — education, simple, primary and fundamental — education of the common and district school — education such as the Massachusetts Constitution declares must forever be cherished that "wisdom and knowledge as well as virtue" may be "*diffused generally among the body of the people.*"

I plead for education that shall be industrial — that inculcates habits of industry and right views of manual labor; that teaches self-help and self-support, the foundation of self-respect and independence; schools for training apprentices [10 Allen 498]; agricultural schools [105 Mass. 431]; farm schools [15 How. 367]; schools for mechanics and useful arts [66 Wis. 398]; schools for science and applied arts [13 Mo. App. 213]; art institutes [17 R. I. 73]; all, indeed, "*educational institutions . . . the design being not so much to secure pecuniary benefit as to . . . teach various kinds of work, form habits of industry, and inculcate right views of manual labor.*" [145 Mass. 146]

I plead for education that shall be political — that all may know and appreciate their duties as citizen-sovereigns and citizen-subjects; that all may perform their obligations of allegiance and protection; and whether as humblest subject or highest public official that all may fill their positions with honor to themselves and glory to their country.

I plead for education that shall be moral and religious — that larger education of the people as Webster expressed it, in which

"a profound religious feeling is to be instilled and pure morality inculcated under all circumstances," because "whatever makes men good Christians," he said, "makes them good citizens;" and because, as the Supreme Court further adds, "this is a religious people, and the influence of religion in all human affairs is essential to the well-being of the community." [143 U. S. 465]

Finally, I plead for education that shall be compulsory — enforced upon every illiterate citizen and voter by the strong arm of the nation, as arbitrarily and compulsorily as the nation stamps out cholera, or quarantines fever, or suppresses crime, or drives from the land a public enemy — enforced upon six million ignorant and vicious American citizens, with an arbitrary and compulsory alternative that they must use the means supplied by the nation to rid themselves of their ignorance and vice or be dealt with as any other defiant lawbreakers, confessed criminals, or arrogant foes of the republic.

Give every ignorant negro, every illiterate citizen, such an education, and the state will become as Milton said, "One huge Christian personage, one mighty growth and stature, as big and compact in virtue as in body," and education will assume its true function, a force that will dominate every other power in our constitutional government.

(4) And that the supreme blessings of education may be ours, I plead tonight for immediate and ample appropriations by the nation. There stand six million United States citizens ten years of age and over, white and black, male and female, all densely ignorant, all demanding, all imploring, all even by right entitled to, a Federal education. Should we educate them as Alabama does, it would cost the nation annually \$11,433,128; or as New York does, \$103,145,340. Whatever the amount, I urge that it be ample, and that action be immediate. Aside from authority "to pay the debts and provide for the common defense and general welfare," which is a mere taxing power, there is no express authority in the Constitution to appropriate funds for any purpose. Practically all the vast congressional appropria-

tions are not made on express but implied and ancillary authority. Take the \$85,309,661 appropriated for the Postoffice Department by the last Congress; not one dollar was specifically voted "to establish post offices and post roads," as the Constitution reads. The enormous expenditures for public buildings, internal improvements and pensions are also all based on derivative powers. The nation I have shown has ample power to educate; it has therefore ample ancillary power to make appropriations therefor, limited solely as to amount and method of expenditure, by its own discretion. And as an exercise of discretion, was it right that the last Congress should appropriate \$18,733,499 for the Indian Bureau; \$2,534,560 for the Bureau of Animal Industry; \$2,497,280 for the Weather Bureau; \$1,287,660 for the Bureau of Plants; \$500,000 for the Bureau of Mouth and Foot Diseases; \$382,160 for the Bureau of Soils, and only \$56,190 for the Bureau of Education? As an exercise of discretion was Congress justified in expending \$971,000 for the bayous of Louisiana; \$1,185,000 for the rivers of Mississippi; \$1,464,000 for the harbors of Alabama; \$1,515,000 for the ports of Georgia; \$1,524,837 for the inlets of Florida — \$39,585,822 to improve the rivers and harbors of the country, and not a dollar to improve the minds and souls of its people? We opened schools and expended thousands of dollars for the Porto Ricans; we sent a regiment of teachers and hundreds of thousands of money to educate the Filipinos; we spent millions upon millions to civilize the Indians; why should we not make ample appropriations to educate our own illiterate citizens, white and black, out of the bounteous resources and overflowing treasury of the nation?

(5) Finally you inquire, how these purposes can be effected. Presidents Jefferson, Madison and Grant urged a constitutional amendment. Even if it could have been adopted in the past it is not now within the domain of practical politics. Since 1804 numerous amendments have been suggested but not one has been adopted except as a distinctively war measure. [16 Wall. 67] All others have failed and will continue to fail until some overwhelming national crisis shall again irresistibly

compel the amendment of the Constitution. But I have shown that an amendment is not necessary. The nation now has ample constitutional power to educate all illiterate citizens. Two simple Federal statutes will suffice. First, a uniform educational qualification for all voters at national elections—the qualification to be based on literacy and moral character. For a model of an educational qualification alone, I commend the clause that with immaterial variations has been embodied in the constitutions of five Northern and five Southern states. For a model of both literacy and moral character I commend the present constitution of Connecticut. Its suffrage qualifications have been in force many years. They limit suffrage not only to those who can read, but to those “who sustain a good moral character,” both qualifications to be determined by the Supervisors of Elections. Second, a statute appropriating funds and providing that the National Bureau of Education shall distribute them throughout the nation, by school districts, on the basis of illiteracy as determined by the preceding census. I would endow the Bureau of Education with supervisory powers, similar to those of the Board of Regents, so that it can make education compulsory, fix the courses of study and direct instruction into any channel, industrial, intellectual, moral or religious, that the citizenship of any locality may particularly require.

Such is my solution of the negro problem — education, a constitutional power, a function of government, the salvation of the republic, and the bright hope of humanity! Reaching deep down to the foundations of the evil, it contemplates no sudden revolution, provides no immediate panacea, promises no instantaneous relief, but outlines a policy, coördinates the functions of state and nation and sets in motion a conservative, constitutional, and irresistible force — the omnipotent force of education. And because its evolution must be slow like all other primordial powers, I urge upon you tonight the imperious necessity for immediate action. Behold the squandered energies of a generation! Behold the irretrievable blunders of the past forty years! Behold civil rights bills, elections laws, reconstruction acts, all swept from existence by

the scathing decisions of the Supreme Court! Not since the Fifteenth Amendment has Congress enacted a single measure that has particularly advanced the negro race.

Now comes the distinguished Secretary of War and startles the nation by admitting our deplorable failure! "The country," he says, "has to face the failure of the plan which was adopted at the close of the Civil War." Never did this illustrious statesman perform a more patriotic duty than when he thus shocked the nation out of its lethargic indifference to the negro problem. The President also has been rudely awakened to the gravity of the crisis. He appointed to office less than a score of colored citizens in performance of a strictly legitimate executive function, and was overwhelmed by a cyclone of protest and abuse from the entire Southland. And our ex-President publicly deplores "the grievous amount of ignorance, the sad amount of viciousness and the tremendous amount of laziness and thriftlessness" that the negro adds to our citizenship, and warns the American people of the alarming and increasing peril of the negro crisis.

Yet I believe this crisis will not culminate in another Rebellion, as Senator Tillman threatens, nor again deluge the land in fratricidal blood. It is the inexorable evolution of the great Rebellion itself. It is the imperative demand for the logical consummation of the policies of the Civil War. It is a crisis for constructive statesmen, not generals and armies. Our fathers emancipated, citizenized and enfranchised the negro; then by an inexplicable political blunder, an inexcusable error of national polity, they stopped short of the sovereign act of all, the emancipation of the minds as well as the bodies of the race—the education of the five million manumitted and enfranchised citizens for the tremendous civic duties thrust upon them.

"If we are to have another conflict," said General Grant, "I predict that the dividing line will not be Mason and Dixon's, but between patriotism and intelligence on the one side . . . and ignorance on the other." President Harrison, alarmed at this heritage of rebellion and dreading the conflict "between intelligence and ignorance" impending ominously over his administration, urged

that his generation "should courageously face these grave questions and not leave them as a heritage to the next." But the nation paid no heed to his words of wisdom, nor to the impassioned appeals of Sumner, nor to the eloquent arguments of Winthrop, nor to the earnest pleas of Hayes, nor to the solemn warnings of Garfield — and because it has not done so and has not systematically and compulsorily educated the negro during the past forty years and must do so today — that is why the negro crisis now looms up in such tremendous proportions and compels the gravest consideration of the whole people.

Nor could this crisis have developed at a more opportune time. The nation is prepared for the emergency. On the negro problem it can now concentrate its greatest energies. No longer need they be devoted to our material and territorial growth. Our expansion has obtained such momentum that no human power, outside of our citizenship, can ever check it. Our dominion over the whole continent is as certain as the tides and seasons. What grander field for expansion on the face of the globe today! Vast domains to the north and the south, larger than the United States with all its islands, girded about by the same great oceans, magnificent, mighty, undeveloped and almost uninhabited domains; and the youngest of you will yet behold the flag of the republic floating over every foot of that territory from the Isthmus to the Pole, while under its protection hundreds of millions of people, speaking the same language, obeying the same laws, and worshipping the same God, will live together in one continental republic where intelligence shall rule and education be the dominating governmental force!

Forward, then, ye citizen-sovereigns, white and black alike! Gird yourselves like men to meet the crisis now upon you and the greater responsibilities looming up on the horizon of the future. And ye executive, legislative, and judicial officers, servants of the people, mistake not the spirit of the times! Your watchword must be education — there your duties must begin and there find their glorious fruition. I adopt the words of a great educator: "In our country and in our times, no man is worthy the honored name of a statesman, who does not include

the highest practicable education of the people in all his plans of administration . . . Unless he speaks, plans, labors, at all times and in all places, for the culture and edification of the whole people, he is not, he can not be, an American statesman." [Mann on Ed. 162]

The President of the United States is supremely interested in the negro's welfare and desires with a singleness of purpose seldom equaled in our history the material, mental, moral, and religious uplifting of the whole people. In his next annual message, observing the precedents of former Executives, why should he not urge upon Congress the appalling evils of illiteracy and the supreme necessity for national relief?

"It is of the greatest importance that all should be possessed of education and intelligence enough to cast a vote with a right understanding of its meaning," was the advice which President Grant gave to Congress. "Hence," he said, "the education of the masses becomes of the first necessity for the preservation of our institutions. . . Make education compulsory so far as to deprive all persons who can not read and write from becoming voters." [Annual Message, 1875] And in the following year he added: "The compulsory support of the free school and the disfranchisement of all who can not read and write the English language, after a fixed probation, would meet my hearty approval." [Annual Message, 1876]

"It is vain to hope for the success of a free government without the means of insuring the intelligence of those who are the source of power," urged President Hayes in his first annual message. "I shall be glad to give my approval to any appropriate measures which may be enacted by Congress for the purpose of supplementing with national aid the local systems of education in all the states." [Annual Message, 1877] "To education more than to any other agency we are to look as the resource for the advancement of the people," was his advice to Congress in the following year; "and I desire to repeat the suggestion contained in my former message in behalf of the enactment of appropriate measures by Congress for the purpose of supplementing with national aid the local systems of education in the several states."

[Annual Message, 1878] A year later he said: "No more fundamental responsibility rests upon Congress than that of devising appropriate measures of financial aid to education supplemental to local action in the states and territories." [Annual Message, 1879] And his final words were: "The best and surest guaranty of the primary rights of citizenship is to be found in that capacity for self-protection which can belong only to a people whose right to universal suffrage is suggested by universal education. The means at the command of the local and state authorities are in many cases wholly inadequate to furnish free instruction to all who need it. . I respectfully recommend that Congress by suitable legislation and with proper safeguards, supplement the local educational funds in the several states where the grave duties and responsibilities of citizenship have been devolved on uneducated people. . Whatever government can fairly do to promote free popular education ought to be done." [Annual Message, 1880]

President Garfield's inaugural address was an eloquent appeal to the nation: "The danger which arises from ignorance in the voter can not be denied," he said. "The voters of the Union who make and unmake constitutions, and upon whose will hang the destinies of our governments, can transmit their supreme authority to no successors save the coming generation of voters, who are the sole heirs of sovereign power. If that generation comes to its heritage blinded by ignorance and corrupted by vice, *the fall of the republic will be certain and remediless*. To the South this question is of supreme importance. But the responsibility for the existence of slavery does not rest upon the South alone. The nation itself is responsible for the extension of the suffrage, and is under special obligations to aid in removing the illiteracy which it has added to the voting population. For the North and South alike there is but one remedy. All the constitutional power of the nation and of the states and all the volunteer forces of the people should be summoned to meet this danger by the saving influence of universal education."

The increasing anxiety of President Arthur was manifest in each successive message. "No measures calculated to promote

that general intelligence and virtue upon which the perpetuity of our institutions so greatly depends have ever been regarded with indifference by Congress or the Executive. . Many who now exercise the right of suffrage are unable to read the ballot which they cast. Upon many who had just emerged from a condition of slavery were suddenly devolved the responsibilities of citizenship in that portion of the country most impoverished by war. . All that can be done by local legislation and private generosity should be supplemented by such aid as can be constitutionally afforded by the national government." [Annual Message, 1881] "It is a momentous question for the decision of Congress whether immediate and substantial aid should not be extended by the general government for supplementing the efforts of private beneficence and of state and territorial legislation in behalf of education." [Annual Message, 1882] "I have previously referred to the alarming state of illiteracy in certain portions of the country, and again submit for the consideration of Congress whether some Federal aid should not be extended to public primary education wherever adequate provision therefor has not already been made." [Annual Message, 1883] And in his last message, "the granting of government aid for popular education," he said, "was a measure which should receive the "serious consideration" of Congress.

President Harrison also added the influence of his great name: "It is of the gravest national concern that those who hold the ultimate control of all public affairs should have the necessary intelligence wisely to direct and determine them. . The sudden emancipation of the slaves of the South, the bestowal of the suffrage which soon followed, and the impairment of the ability of the states where these new citizens were chiefly found to adequately provide educational facilities, presented not only exceptional but unexampled conditions. That the situation has been much ameliorated there is no doubt. The ability and interest of the states have happily increased. But a great work remains to be done, and I think the general government should lend its aid." [Annual Message, 1889]

Supported by such official action of his predecessors as well as by the imperious demands of the situation, why should not President Roosevelt with all the force of his great character urge Congress to enact immediately a uniform educational qualification and to grant ample appropriations for the education of all illiterate citizens.

And Congress, why should it not call a truce to partisanship and sectionalism until it places on the books these nonpartisan, patriotic measures? Then the nation, reunited in spirit as in truth, over the grave of its dead past and over the buried issues of slavery and rebellion and reconstruction, would march on to its stupendous and mighty destiny, the freest, most enlightened, most powerful sovereignty ever organized among men.

Tuesday morning, June 30

THE PROMISE AND POTENCY OF EDUCATIONAL UNITY IN THE UNITED STATES

BY PRES. GEORGE EDWIN MACLEAN, STATE UNIVERSITY OF IOWA

One journeying across our country, spanning a continent, is impressed by the diversity in topography, industries, and peoples even in their bearing and speech. The western young lady returning from Boston quite possibly was believed when she said that such were the refinements of speech in the East that the very owls, unlike the birds of wisdom in the West, said not "To-who, to who," but "to-whom, to-whom." The patriot's heart, however, swells with pride and takes courage as he makes the continental journey, in seeing the girdle of churches and schoolhouses flying the flag. The public schools specially are the bond of a common civilization and of an undivided Americanism that knows neither party nor sect, truly the country's holy catholic church.

Director Howard J. Rogers, of the Department of Education, St Louis Exposition, says:

It is a mistake to suppose that we do not have in this country a national system of education; that, because we are a community of states, our systems of education are divergent and opposed to each other. That is not so. So great has been the unifying and

harmonizing power of the United States Bureau of Education under its great chief, Dr William T. Harris, and such has been the constant interchange of thought and method promoted by the National Educational Association that there exists today between the schools of Boston and St Louis and San Francisco less difference perhaps than may exist between the schools of the north and south parts of those same cities. In other words, in every progressive community the administration of details is much the same. Individual initiative and local conditions are the only things which serve to distinguish our schools. The educational exhibit at Paris if it did nothing else served to demonstrate this, and I think it was almost as much of a surprise to our own people to realize it as it was to foreigners to find it so.¹

We must not, however, deceive ourselves on account of the similarity of appearances e. g. in the way of schoolhouses, the use of the same names for grades, schools, high schools, colleges and universities. There is really a great diversity not only in the things, but in the spirit. It is so for reasons like the unequal age and development of different communities, the social provincialism that is attendant on the individuality of groups of Americans under varying environments and with different heredities. A high school even in the mid-West, where the public school system is developed, may mean only a graded school, or a school of a one or two years course, as much as one of four.

Educational unity amidst all this diversity is the bond devoutly desired not only for the sake of education, but for the sake of our common country. To disarm all prejudice, let us say that *unity* is contradistinguished from *uniformity*. Uniformity is outward, mechanical, and to a certain point only desirable.

Lest one good custom corrupt the world.

Unity is essential, dynamic, coordinating and adapting various forms, recognizing equivalents, and harmonizing common values in one life.

¹ University of the State of New York. High School bulletin 16. Mar. 1902. p. 388.

Amidst the notes of pessimism of cynicism and educational failure, we as educators catching a glimpse of rising educational unity, may adapt the hymn :

Watchman ! tell us of the night,
What its signs of promise are.
Traveller ! o'er yon mountain's height,
See that glory-beaming star.
Watchman ! does its beauteous ray
Aught of joy or hope foretell ?
Traveller ! yes, it brings the day,
Promised day of Israel.

We can but rapidly indicate some of the prominent signs of promise of educational unity, and incidentally suggest the promotion of it. While, properly speaking, there is no American educational system, there are not only the *dissecta membra* of such a system in the paper and partially wrought out school systems of the various states, but there is an organic though embryonic system signified by the United States Bureau of Education. This bureau, born in 1867 in the first flush of a constructive nationalism following the Civil War, has passed through the stage of mere record and publication, and has become, despite itself, the fountain head and inspiration of great movements which have often nominally issued from another promising agency of educational unity, the National Educational Association. The report of the committee of 10 on secondary school studies in 1892, is a notable instance.¹ It is suggestive that these earlier reports emphasized uniformity in school programs and requirements for admission to college; that the tables proved that a great number of subjects were taught, as many as 40 in secondary schools; that many of them were taught for such short periods that little training could be derived from them, and that the time given to the same subject in different schools varied widely. The reports of the latest committees are beginning to substitute unity for uniformity and show clearly that we have gained in concentration by the reduction of a number of subjects and by the enforcement of sequences and lengthening of the study periods.

¹ United States Bureau of Education. Report of Committee on Secondary School Studies, July 9, 1892, with reports of the conference.

Following the report of the committee of 10, national uniformity in secondary instruction became a prominent topic, taken up by the Schoolmaster's Club, of Michigan, Dec. 1, 1894, in a discussion of unification of requirements for admission to American universities.¹ This meeting caused the star of educational unity westward to take its way, and gave promise of national movements now on us. The dawn had been heralded by the New England Association of Colleges and Preparatory Schools in 1885, and the formation of bodies like the Association of Colleges and Preparatory Schools of the Middle States and Maryland, the Association of Teachers of English in the North Central States, and the Commission of Colleges in New England on Admission Examinations. The feeling became general that it was time for the West and South to do vigorous work in cooperation with the eastern associations, as the following quotation shows.

With the largest percentage of school attendance of any section of the United States, and with the closest articulation and most sympathetic relations between secondary schools and universities, the North Central states are in a peculiarly favorable position to lead in establishing national unity and uniformity in educational matters.²

The formation of the North Central Association of Colleges and Secondary Schools in 1895-96, may be marked as the pivotal point in the turning from a provincial toward a national outlook. President Seelye of Smith College, as a result of his experience with the New England associations, forecast that the most successful method of securing unity and uniformity in requirements for admission to college was the formation of associations like the New England Association. The Southern Educational Association, dating from 1890, reinforced by the South-western Association, in a general fashion may have prepared the way for the genuinely national movement gathered in the Conference for Education in the South, established in 1898. In the words of Pres. Robert C. Ogden:

School Review, 1895, v. 3, no. 2, p. 65 and following.

² School Review, 1895, v. 3, no. 2, p. 73.

The conference exists for a holy cause—holy in the highest sense. Its creed . . . is expressed in the single simple dogma that every child in this broad land possesses the natural right to a good English education. The mission of this conference is . . . to so enforce its dogma that the moral rights of children to education shall be made forever secure. Out of the conflict [the Civil War] came a legal national unity, that was of necessity deeply impressed with bitterness and misunderstanding. But in moral and national things the 20th century is an Advent to the world at large and an Epiphany to our country. There is a sudden manifestation of accumulated power. Masses of capital rush together with magnetic impulse and in startling magnitude. This unity of money concentrates material things that have common interests and suddenly reveals vast production heretofore unrealized. Community of interest pools in concrete form values that had not been comprehended in detail. And so, while the new century creates nothing, it lifts the veil and reveals a gigantic life—a life that, growing silently in wide diffusion, was not known, understood, nor appreciated until the laws of finance and commerce breathed into it the breath of larger organized life. This material life is national. Prosperity is its creator and its benediction. Diffused prosperity is a solvent that fuses and melts and molds.

Simultaneously with this realization of things an intellectual awakening appears. Generous facilities for research are placed at the command of science. The increase of endowment to great institutions of learning is the recognition of the debt that wealth owes to scholarship . . . The inspiration of the new century appears in the awakening of the public conscience to the moral responsibility that recognizes the increasing duties of stewardship that accompany accumulating wealth, higher education and growing power. The restless anxiety for service . . . expresses the stimulus of an aroused conscience. The conclusion is certain that never until the years that mark the early dawn of the 20th century have we had in a political, moral or material sense a complete nation.¹

No better specimen of the rapid progress from stage to stage in the development of educational conferences and associations can be found than the history of the Conference for Education in the South, which illustrates the passage from the stage of the idea with discussion to that of the ideal with conviction, to that of the

¹ Proceedings of the Fifth Conference for Education in the South, bulletin of the Southern Education Board, August 1902, v. 1, no. 2, p. 10.

deed in action. The conference in 1901, only its fourth year, established the Southern Education Board for prosecuting a propaganda of education and not to assist schools or institutions. At the same time it set up the parallel board of the General Education Fund for the receipt and disbursement of money for educational purposes. The representation in both these newly formed boards of the boards of the Peabody and Slater funds secures harmony and economy, and well shows that the children of light are becoming as wise in this day and generation as the children of this world. Following the example of this latest born national conference and boards for education in the South, it only remains for the great provincial, general, professional and technical associations as rapidly to develop ideas into ideals and realize them in deeds. In this period of nationalism, mergers of these associations would be lawful.

As an intermediate step there should regularly be delegates from one to another sitting as corresponding members and interrelating these associations. These delegates, with representatives from national learned societies and institutions, might well be formed into a national educational senate. This would be a representative body coordinating the sectional associations and nationalizing, by the immediate consideration of living questions of educational moment, in a way that no national educational council has been able to do, and indeed supplementing the necessarily delayed and abstract advice of the latter body. Correspondence among these associations or this senate, could quickly transmit and adapt the latest contributions from one body to the other. For example, would it not be of national benefit if the report of the commission on accredited schools of the Association of Colleges and Secondary Schools of the North Central States just presented should be universally considered? This commission¹ defines and describes unit courses of study in the various subjects of the high school program, taking for the point of departure the

¹ Report of the Commission on Accredited Schools of the North Central Association of Secondary Schools and Colleges 1902-3. Chicago.

recommendations of the national committee of 13; serves as a standing committee on uniformity of admission requirements for the colleges and universities of this association; takes steps to secure uniformity in the standards and methods, and economy of labor and expense, in the work of high school inspection; prepares a list of high schools within the territory of this association which are entitled to the accredited relationship; and formulates and reports methods and standards for the assignment of college credit for good high school work done in advance of the college entrance requirement.

A sign of educational growth at the very top in the field of the highest or university education, as above the higher or college education, is the formation at the opening of this century of the Association of American Universities (some 14 of them), vulgarly known as the "Ph.D. Trust." The National Association of State Universities in the seventh year of its existence, with 41 institutions, most of them the crowns of public school systems in as many states and territories, makes the second of the foci for the description of the ellipse of the highest American education. The grouping about all these universities of the so called detached colleges by means oftentimes of formal affiliation, will conserve as well as uplift the small college and will at the same time liberalize the university as over against tendencies to extreme specialization. A happy promise is thus given of the unification of the higher and highest education in the interests of the best traditions of the American college and genius. The diffusion and discovery of useful knowledge are reinforced on the one hand in the popularization of knowledge, and on the other hand in the maintenance of leadership in the world's thought and research by the many learned societies too numerous to mention, like the American Association for the Advancement of Science and the American Philological Association. National endowment for the Smithsonian Institution and the Carnegie Institute gives promise of a closer coordination.

Thus far we have considered the promise of educational unity chiefly from the point of view of general education. This is but the core, about which gather wide sweeping industrial, art and

professional educational movements. American technical education marks as a red letter day in its initial history the founding of the Rensselaer Polytechnic Institute in the neighboring city of Troy in 1824, but technical in supposed antagonism to classic education, great as were its triumphs in engineering, could not come to its own till it was applied in the industrial education. Abraham Lincoln, the emancipator, consummated the old in 1862, and in the same year inaugurated the new by signing the Morrill bill, providing for the national endowment in every state and territory of colleges of agriculture and mechanic arts for the education of the industrial classes. Freedom and union having been secured by Constitution and war, equality was to be insured through education by peace and prosperity.

The American Association of Agricultural Colleges and Experiment Stations, by its exhibit at the St Louis Exposition, doubtless will reveal one of the most unique things in the history of American education. This association has a vantage ground second to none for furthering educational unity, as it is related to the Department of Agriculture, which is represented in the cabinet. It has really put a schoolmaster into the cabinet. It may be that unconsciously it has prepared the way for a day when the Bureau of Education may gather its own to it and become a department with its cabinet officer, as is true of almost every other civilized nation.

At this point we are on debatable ground; but as surely as there is evolution, the day must come when the Bureau of Education and its congeners at Washington, now an embryo, will become an organism. If we trust democracy, in due time with the proper subordination of the political, there will be a national administration of education coordinating without subverting the educational systems of the states and all the great educational forces of the United States public or private. The Congressional Library, the national museums, the state, city and town libraries and collections, will be so interrelated with the schools that the remotest rural district will be touched by the national educational system — the veritable nervous system for the diffusion of intellectual and spiritual life in the republic. It is not too much to

say that we have the promise of all this in the present quiet administration of the Bureau of Education, and notably of the Congressional Library, as it attempts to serve the remotest parts of the country.¹

The absorbing attention given to questions of professional education and the affiliation of professional schools with colleges and universities is a most positive sign of educational unity. Almost without exception the reputable professional schools have sought or accomplished an affiliation. It is an open question if the proprietary schools, except where endowed, can long survive. The demand for a thorough preliminary education, the development of the sciences, material, political and social, and their ramifying applications, almost compel professional schools to be at the seat of the university. The contact of the professional and the liberal education has brought up new questions as to combination of courses, educational values and methods of instruction. The public is attracted by what is largely incidental, the reduction of the time element, which in reality has varied in accordance with the ability and purposes of the pupil in Germany, England, and even beneath the procrustean four years framework of the old-fashioned American college. Some gains in time-thrift seem certain. But not only have the standards of the professional schools been raised and liberalized by the touch of university culture, but the schools themselves have organized for the maintenance and promotion of professional standards oftentimes above the demands of the professions themselves. The national associations of the colleges of medicine, of homeopathic medicine, of law, of dentistry, of pharmacy, are so powerful that even the millionaire private universities and state universities have to accept the dicta of these associations as to requirements for admission, graduation, and even tuition. These associations are not only drawing nearer to the colleges and universities and relating themselves to the secondary schools, but they are also drawing nearer to one another. A correlation of studies is being wrought out and the certification of students is increasing.

It may be objected to our discussion of educational unity that

¹ See address of Anderson H. Hopkins, ass't librarian John Crerar Library, Public Libraries, May 1903, v. 8, no. 5, p. 190.

it savors too much of centralization and hopes for too much from organizations and their interrelations. As to centralization, President Draper in another connection makes answer:

Some will object that there is too much centralization of power in all this. There is no more than conditions demand and experience makes imperative. Moreover, we have had some very confused notions about the rights of the citizen. He has the right to good schools, but not the right to organize them and superintend them in person. If all were to have the right of superintendence, the schools could not be good ones. Is democracy to be put to harder tests than more consolidated forms of government, and still expected to succeed? A democracy determines through its established and representative assemblages what shall be done. It may have to leave some things to the discretion of its representatives.¹

I may add, American independence and individualism will restrain and correct the evils of centralization. Education fosters individualism. The endless series of local governments and organizations, national and state, county, town, and district, would cure usurping centralization.

It is to be freely conceded that we may put too much confidence in the machinery of organization, but it has its significance and place, and has become a tool indispensable, notably in the industrial and commercial world. In the history of civilization and economics no longer are the earlier stages of individualism, competition and nationalism dominant. For better or worse, we are in the stage of combination. The principle is arrived at that planless production makes waste. Shall educators be the last to read the signs of the times? By the token of the age of the triumphs of democracy in the processes of organization, and remembering that education, though germinal, primal and terminal, is only a phase in the social evolution of the race, is it not our duty to make our studies of educational unity issue in positive plans for the greatest economy and wealth of mental and material productions? From their spiritual nature there are desirable educational mergers and trusts. They are as apart from the dreaded octopus of the

¹ Vital Points Touching the Public Schools of a Large City, an address by Pres. A. S. Draper before the Public Education Association of Philadelphia, Jan. 19, 1903.

commercial world as was Ariel from Caliban, but both live in the island of the world and must learn the law of service.

The highest promise and the fullest potency of educational unity are in the recognition of the personal and the ethical in education. The evidence of this is no longer confined to the preachings of the doctrines of the most modern psychology, child study and pedagogy, but appears in the formation of educational religious societies outside of, but not antagonistic to the churches. The Society of Ethical Culture might have been thought sporadic, but the Society of Religious Education, and the Religious Education Association founded this very year, are symptomatic. Church, state, and private institutions, with antagonisms disappearing, are swinging into their orbits in a national galaxy about the full orb'd character—education.

It is in the unity of the spirit that there is not only the bond of peace, but of progress. Americanism, broadly intepreted, means the best for all and all for the best. The heritage of European civilization, vivified by an intense Christianity, re-vivified by the struggles for freedom within our borders and for liberation of the oppressed from Porto Rico to the Philippines, thrills with the potency of a higher educational unity than the world has ever known. In this era of our entrance as a world power, the example of our educational unity has international significance.

Our topic reads, "Educational Unity in the United States," where *United States* would be supposed to limit, but, from our present altitude, our foreign friends may amiably say, with a dash of irony, "Does the United States limit in anything or expand?" Jean Paul Richter says, "The empire of the sea belongs to the English; that of the land to the French; and that of the air to the German." What is left for the American? The Yankee answered who declared that Boston was the hub of the universe! The cosmos is ours. We can not meet as school teachers without entering on cosmic councils!

Educational unity is the generic term. Despite the prayer of the ages, ecclesiastical unity suffers schism; political unity, partizan and sectional strife; industrial unity, the conflict of labor and capital; social unity, the resurgence of class distinc-

tions; the unity of humanity, the chauvinism of over-intense nationalism. Educational unity preeminently persists. Underlying and promoting all these inspirations for unity, the republic of letters more nearly approximates the reality than the federation of man by the treaties of the political powers of the earth, or the republic of God, dreamed of by saints and sages.

May it not be permitted to the American educator as patriot, in view of the potency of educational unity, to sing James Whitcomb Riley's song, wrung from him by McKinley's fall, the *Messiah of Nations*.

Lift the trumpet to thy mouth,
America !
East and West and North and South—
America !
Call us round thy dazzling shrine
Of the starry old ensign—
New baptized in blood of thine,
America ! America !
High o'erlooking sea and land,
America !
Trustfully with outheld hand
America !
Thou dost welcome all in quest
Of thy freedom, peace and rest—
Every exile is thy guest—
America ! America !
Thine a universal love,
America !
Thine the cross and crown thereof,
America !
Aid us, then, to sing thy worth ;
God hath builded from thy birth,
The first Nation of the Earth—
America ! America !

Formal discussion

Prof. Albert Perry Brigham—I would like to dismiss at the outset any notion of formal unification as a necessary accompaniment of this question. We may or we may not reach an educational system which consists of many parts coordinated with each other in some official way. If asked to weigh the probabilities, one would answer no to any query as to such unification. We have numberless schools, some among the greatest,

which acknowledge no formal relation to any general or higher power, and yet they are integral parts of an evolving American system of education. Educational unity must be organic, and it will result from the vitality and growth of American education. We shall understand the situation if we think somewhat in terms of biology. Out of much apparent confusion we are seeing the differentiation and progressive dominance of a type.

This unity will not be planned, or to any degree shaped by debate, or legislation. It is much like a natural force, and demands similar behavior on our part, namely that we shall study it and conform ourselves to it. Our conception of unity is changing and is becoming vital rather than formal. We do not need to have a national university as a keystone, in order to have a perfect arch. A generation ago progressive spirits pleaded for the unity of churches. They read the process something like this: We will put a doctrine over against a ceremonial and patch up a compromise. We have traveled a long way in a generation, and we know that even now, with all the remaining divisions of Christendom, a unity exists which is deeper and broader than the ecclesiastical diplomats of thirty years ago dared to dream. It has not been effected, it has not come with observation, it has grown!

Thus we should look on our American education. We can not know it from any single point of view; it is perplexing in its variety and in its flux; some might call it without form, and I know a few people who seem to think it is void also. But it is alive and has the unity of life. It ought not to be hard to convince any man that a forest has more beauty, more use and even more harmony than if it were all one colossal tree. You can not have unity without flexibility, the capacity to turn in any direction, and the higher the organism the greater the range of adaptiveness.

No honest student can study the paradoxes and heterogeneities of our elective system without conceding that he has encountered a chaos. But it is chaos with cosmic elements in it. Indeed, I am ready to say that the confusions of an elective system, which some think no system, the steady evolution of the degree of bachelor of arts and the tendencies toward variety in

the length of the college course, are all symptoms of the growing unity of American education.

So long as prescribed studies ruled in our colleges, it was your prescription versus my prescription; there was no adaptiveness to social and individual need, and no progress toward a unified educational life. But the hard and fast lines have been dissolving, and the free system, more or less regulated and checked if you please, shows us a herculean and hopeful, and in the main, successful effort to adjust education to life.

Fifty years ago the degree of bachelor of arts was believed to be one thing, a symbol of a definite type of culture, or at least of liberal culture gained by one sort of instrument. In the years that have followed, the degree, or that which it stands for, has undergone a steady evolution, the various bachelor's degrees which have been tinkered into existence as labels for supposedly different kinds of culture, are dropping out of sight, and the college course and the degree stand out with more vitality and more real unity than they ever had before.

The same is true of the short college course so called. I do not know any faculties that are organizing radical excursions in college legislation. Nobody is trying to shorten the college course. Our policies shape themselves by individual precedents, called out by individual needs. We are trying to do the wisest thing by the single boy, whether we keep him in college three years or five. Therein we are conforming to the needs of modern life, to the call of sovereign individuality, to Americanism.

Professor Hanus has written something on "our chaotic education." Even if he were not a learned professor of education, he could make out a good case. He makes emphatic point that the reports of the committee of 10 and the other famous committees are not correlated with each other. But he concedes enormous influence to them, and therein pays them highest honor. Unrelated in any strict sense, if you please, they were yet vital, have promoted discussion, set standards, and have contributed immensely to the vitality and the unity of our education.

I have urged that educational unity must be a vital product. My second proposition goes farther back and says that unity will be a corollary of the swift integration of our social and political life. Pres. Woodrow Wilson said the other day to the students of Brown University, that this country is still sectionalized. With due respect to Dr Wilson as an interpreter of American history, I think this word is far too strong. I think we can congratulate ourselves on the swift decline of sectionalism and the growing social unity in the United States. We stand for conditions unique in history. An advanced and pent-up civilization was separated by an ocean from a wide, rich and almost empty continent. There has been a swift overflow of picked men into this land, a land of great geographic unity, specially as entered and occupied from the Atlantic side. In a century this continent has been overrun, and now for the first time we are a nation without a frontier, and the streams are turning on themselves, to come to rest in the great sea of Americanism. We are in an era of assimilation, and of growing unity. New England no longer sits isolated or commanding, behind the Berkshires, and the oft mourned social and industrial changes that she has seen are adjusting her to her environment and making her one in type with other parts of our domain. She has sent her sons to people the West and has received in turn her full share of foreign population. It is not without significance that in our oldest eastern seats of learning, with no great deposits of precious metals within 2000 miles, are two of our greatest centers of instruction in mining engineering.

The old Middle West is well assimilated to the East. A western man has been defined as an eastern man who has had additional experiences. Less conservatism, perhaps, and more readiness for new schemes are found in the Mississippi valley than farther east; but, if you look for stability, intelligence, sound moral ideas, public schools or great universities which are solar centers of light and truth, you may find them in the Middle West.

I have no hesitation in declaring a growing unity of North and South. There are more cotton mills (if less capital) in the South than in New England. The plantations are broken into

small holdings. There is diversified agriculture. Industrial cities are rising, foreign commerce enlarging. Southern Appalachian forests and streams are felt to be of national concern, and even the negro problem is not the unattacked and hopeless problem that it was in the near past. The southern man has too much on hand to be a sectionalist, and the northern man understands the South better than he did. The Southern Education Board, compound of southern and northern learning, patriotism and wealth, and the great summer school of the South now doing its work in Knoxville, are living and glorious tokens of coming educational unity as between the land of the gulf and the land of the Atlantic and the lakes.

In 1896 a brief writing appeared in the *North American Review* bearing the title, "Two Republics or One?" Its writer seriously thought there might be two dominions where now there is one. The West and East were sworn enemies on the question of money. They were out of sympathy on the tariff. The West had no interest in a great navy. The East would oppose all plans for watering the arid lands. It would not seem that a serious word could become so perfectly obsolete in seven years, or rather, that a proposition then made by a thinking man, in a pretentious organ of public opinion, could sound so much like a vagary of insanity, as the idea of two republics, each coming down to the Mississippi river, now appears. The Far West and the East are not very far apart as regards social, political and educational life.

So then I go back to my proposition that unification in American education will be a vital product of Americanism, of social and moral advance, a splendidly unifying Americanism.

The great tendencies toward formal unification have been amply mentioned by the speaker who gave the first address. Two or three of them have appealed to me with special force — the advance of university and technical education throughout the land, the evolution of the college on its own particular horizon, the growth of secondary education on its level (the last gap in secondary education is now coming to be filled up rapidly in the southern states) and the coordination of these with each other. All this means some approach not only to

organic but to formal unity in education. I do not know but our friend, President Harper of the University of Chicago, might be tempted to say that educational unification would mean the affiliation of everything that bears the name of a school between the Appalachians and the Rocky mountains. We will let him have his way and we will say that such great centers of teaching with the unifying work they are doing, are another sign of the unity of American education. The College Entrance Examination Board is another fact of the same kind. The Department of Agriculture has been referred to. I think if I had liberty of time my enthusiasm would lead me to make a little speech on the Department of Agriculture. I will say only that the department is doing a great unifying work in the coordination of the agricultural colleges and in the work of the experiment stations in every state. The diffusion of education, the transfusion of thought in education through the Chautauquas of every grade and through the summer schools held by the universities, all result in what I call seriously the ministry of education. A man asked me yesterday whether our college did not graduate more men for other professions than for the ministry. I said, "We graduated more than 30 men the other day and only four or five of them are going into the ministry; but about one third are going into teaching." I want to close with this remark, that I am impressed from day to day and from year to year with the power and the amount of sturdy moral conviction, the sense of obligation toward life and character, that I observe in the teaching profession; and, if there is any foundation broad and deep and substantial for unity in American education, it must ever be the moral foundation.

Prof. E. E. Hale jr.—I will not take your time by apologizing for speaking in a very informal way. It was only, as the Chancellor says, a few moments ago, while we were all listening to President MacLean, that the message came from President Finley saying that he could not be here in season to occupy the time assigned to him. I shall be unable to offer you any formal discussion of this matter according to the statement set down on the program, but I shall not, on the other hand, affect to have nothing to say on this subject. I had heard very little of what my friend, President MacLean, said before it appeared to

me that it was a most interesting topic which he had taken up, and that he was dealing with it in a manner to raise a good many ideas in our minds. I looked forward to joining in the subsequent discussion; so that, when I was asked if I would take President Finley's time, I did not decline to do so.

I was very much impressed in President MacLean's remarks with his putting together, in such a way that we could readily get an idea of the whole matter, the various forms of machinery of organization and education combination in this country. I have myself been interested in a number of the organizations which he mentioned; still it was a surprise to me, as he went on in his remarks, to see how great is the possibility, how almost perfect we might say are the means at hand, for the unity which he had in mind and which he so well distinguished from possible uniformity, which would demand machinery of a very different kind. And, as my mind followed the ideas which he suggested, it appeared to me that a matter of interest connected with this discussion of machinery of organization and combination, is the relation of the individual teacher or professor, the individual educator, toward all these bodies. That notion was further impressed on my mind by Professor Brigham, when he held that unity would be the result of integration of American political and social life.

I put these two things together because it appears to me that educational unity in American life, unity as President MacLean says, and not uniformity, will be attained only by the following out of what I presume is the fundamental principle of American life, the principle of individualism. American education can be unified only in some manner proper and possible to the individuality that goes to make up our system; so that, when I ask you to consider for a moment what position the individual teacher or educator should take toward these educational organizations, I am following, I think, directly in the line of the discussion which has been opened by President MacLean and Professor Brigham; and I hope that in suggesting to you this subject I follow the line of useful consideration perhaps a little better than if I had previously considered some questions on this subject without knowing exactly what Presi-

dent MacLean was going to say, or Professor Brigham. What should be the relation of the individual toward these educational organizations? What should the individual teacher do in regard to them, what should the individual college professor do? Speaking for the college professor, I am inclined to think that it is only within a comparatively small number of years, let us say 15 or 20, that the average college professor has thought that he had anything at all to do with such educational organizations. So far as I recall the first years of my college experience, which are now almost 20 years behind me, the greater number of those who were associated with me at that time had very little connection with other professors and teachers in other institutions; but I recall very well that some of us used to be present at University Convocation. I think perhaps in being so present I had a premonition of what it was well to do. It certainly was not a very universal proceeding; it has been my experience, as I have gone on in educational life, that the college professor as a rule is a more or less isolated person. He does not as a rule join with others of his profession in associations as freely as he might. Whether this is true of the teacher in the preparatory school or not, I am not competent to say. I think, however, that within the last eight or ten years matters have changed very much, and that both the teacher and the professor have seen themselves more incited to some sort of connection with others than was previously the case. This association with others is the means whereby a national uniformity may be brought about. It demands a certain amount of work undoubtedly, a certain amount of trouble, a certain overcoming of that inertia which grows on one. There are many things which lead one to say, We need not associate ourselves with others, we do not get very much good from association, we do not get very much from the papers—while the fact is that it is impossible in a day like this for a teacher in a high school or a principal or a professor in a college to remain absolutely by himself. It is necessary that he should become aware of what is being done by others, that he should become in some way or other permeated by the spirit and interests of other persons. We have in this State as in almost all

states a very excellent though informal system whereby not only the teachers of the small localities are gathered together but the teachers of larger localities as well. We have the Hudson River Schoolmasters Club here round about Albany, the Associated Academic Principals for the State, the Association of Colleges and Preparatory Schools of the Middle States and Maryland and other bodies whereby the teacher and the professor are able to associate themselves with others engaged in the work of interest to them.

And that brings me to one other point which I must call attention to, namely that we ought to remember that educational unity is not of necessity merely pedagogic but is what I might call scholarly as well. Take the experience of some other countries. We find that they differ from us a little in this matter. I am thinking specially of Germany. In Germany, if I understand the matter correctly, there is much more educational uniformity than there is in this country, and on the whole I should say there was rather less interest on the part of German teachers and professors in general educational questions. In my experience as a student I usually found that the professors had very little interest in general educational questions. They did not care very much for them, they did not associate themselves very much in such meetings as we have here. There are such organizations in Germany, but not as many as we have in this country. Now unity does not mean uniformity as carried on in an official manner; but one thing that the German educational system has to a great degree is a scholastic unity on the part of those who are pursuing the same lines of scholarship. That is felt very strongly, I think, by every teacher and professor there, unity with all those who are pursuing the same lines of scholarly work. It appears to me that the duty of the individual in this case is not merely toward what I may call pedagogic unity, because as a rule meetings of this kind are more or less pedagogic. It is not merely the duty of the individual to be cognizant of such organizations, but also to an equal degree to be cognizant of the general aiming at unity in the special line of scholarship in which he is himself particularly interested. It is only so that our educational system will gain in scholarship through organization.

General discussion

FRIN. T. H. ARMSTRONG—When this subject was first presented to me for discussion I confess that it came to me with something of a feeling that there is no very favorable promise of educational unity in the United States. It came to me in this way—that, each of the states having a different standard and a different ideal and each contending for its own ideal, there is little hope of bringing together these contending and antagonistic desires into one unified educational system. However, as I have thought more on the subject, I have come to think more with President MacLean that the great tendency of the time, the immense work that is being done by the educational associations so numerous throughout our country, specially that of the great National Educational Association, is tending more and more to unify educational interests. These, I think, are the hopeful signs. But I think we all feel keenly that the educators, the teachers, the ones who are in the school and are doing the practical work, are to be the leaders in educational thought. We are sometimes led astray in recent times by the cry that is going up, “We must trust it to the people.” We must trust it to the people, but we must be the leaders. Those who are in touch with educational thought and who know best what the boys and girls need must be the leaders in educational thought and must shape the educational policy.

Now, while there is a tendency toward unity, and while I feel very keenly that we are advancing, there is yet a great waste of energy in our school system because of dissipation, because of a lack of unity in this country. I do not know of any other civilized nation where there is such a lack of unity in the educational system as in our own. If we are to make rapid progress, we need a centralized authority. I do not wish to cast any reflection on the excellent work done by Commissioner Harris, but Commissioner Harris is without the authority which should be vested in some national official. I wonder if the time is not ripe when the educators of this country should demand that the Bureau of Education shall have definite authority to demand certain specific requirements. There are some things that are deplorable in this country, notably the freedom by which certain institutions that are in fact no insti-

tutions at all, are granting degrees; institutions that are willing for a consideration, and that consideration a meager one, to give the Ph.D. and other degrees of a like nature, and we always find people who are willing to accept them. This is a condition which makes this country a source of ridicule to other people and a source of ridicule among ourselves, a condition which should be abolished.

Again, there is great waste of energy and there is great annoyance because conditions which exist in one state, a standard of scholarship established in one state, are not acceptable in another; a teacher graduated from a normal school in one state is not acceptable in another. It seems to me that with very little effort this condition could be remedied, and that a unified standard of scholarship could be arranged which would be of equal value in each of the states; that a degree granted by a college in Kentucky would be acceptable in New York and that a normal graduate in New York would have the same standing in Colorado. These are some of the disagreeable features that I believe should be remedied.

Again, while we know that colleges like individuals must have their individuality, the secondary schools suffer more or less from the fact that there is not a uniform standard of college admission. I do not know that this can be brought about, but I maintain that it is desirable. I maintain that a young man who is preparing for college but who has not yet decided what college he will enter, after pursuing a definite course, should, if he is prepared for one college, be acceptable in another, and I maintain that some standard should be fixed.

Again, when a young man has pursued a course of work for which the secondary school has fixed a high standard and failed to come to that standard, and, because he is a success in athletics or because of some other consideration, is admitted to college with a lower standard, that is deplorable and a condition which I think can be remedied. As educators we should try to remedy and bring about a condition of unity along these lines that will not only be economical but will be extremely helpful to the secondary schools as well as the colleges.

Chancellor Doane—I am glad to know that there are two persons here from whom I am sure the members of Convocation

will like to hear. One is the dean of Barnard College, Miss Gill, and the other is Professor Lough of New York University. I know that Dean Gill is in the room, and I am sure that she will be disposed to speak to us on this important matter; and Professor Lough as well.

Dean Laura D. Gill—I have not come prepared to speak on this subject, and it is my custom not to respond in meetings of this kind without preparation. As the men have been speaking this morning, I have been thinking how great the unity in the ideals of education is in the countries with which I have happened to have personal relation. I saw the introduction into Cuba of our American standards of education. I was surprised to find there, even though the privileges had never corresponded to any extent with those we have at home, a universal feeling that whatever success was before that country must come from living up to the same educational standards which we have established. I have recently been rather intimately concerned with an effort to introduce modern educational standards into the little country of Iceland. The people are, as you know, this summer going through the same struggle which they went through in 1851, to determine whether they shall continue a separate existence. They feel that their national hopes rest on education. In Germany, the people consciously attribute the success of the past and rest their hope for the future on their educational system. In England, last summer, in following the struggle with regard to the education bill, I felt that the prevailing interest there was for this higher standard of education which the world at large is demanding. If, then, the small and the great countries have somehow or other the same high ideals, we may feel that unity is being established, and that we shall ultimately work out for ourselves something of this high ideal toward which we are tending.

Prof. James E. Lough—In considering the question of educational unity, we ought to keep in mind the illustration of the happy families that we see sometimes in the comic papers, where the happy family consists of a lion and a lamb and one or two other animals, all living in perfect unity, but all inside the lion. Any attempt to unify the schools by the mere fiat of some central

authority is open to this immediate danger. The unity we need must come from within, a unity that arises from a community of interests and of purpose rather than a mere formal unity of organization. When all teachers have interests in certain lines, and when the same interests exist throughout the entire school system, then we shall have an educational unity. I believe that this form of unity is growing. We all have a community of interest in the gradual development of our students from the time they enter the kindergartens till they have graduated from our professional schools. There is at present a certain lack of educational unity due to a considerable ignorance on the part of teachers in each particular department of the school system concerning the work of the other departments. Some of the teachers in the kindergarten are ignorant of the work of the colleges; some of the teachers in high schools are ignorant of the work of the colleges; and it is equally true, I am sorry to say, that some of the teachers in the colleges are ignorant of the work done in the kindergartens and in the high schools. But this cause of a lack of educational unity is rapidly disappearing. The teachers in the high schools are becoming more and more interested in the work of the colleges and of the lower grades, and the teachers in the colleges are certainly becoming more interested in the work of the high schools; and, as this interest develops, we shall have an increasing educational unity. In this connection it will be interesting to notice the increasing unity of the schools arising from departmental teaching. Here teachers interested in history or in English will unify their work in the schools according to the subject of instruction rather than according to any artificial grouping of the pupils according to grades. Thus we find that the teachers of English in the colleges are becoming more and more interested in the work in the high schools, because the teaching of English in the high schools directly affects the teaching of English in the colleges. Wherever we find this increasing interest between the various parts of our educational system, we have an increasing educational unity.

The particular factor in the unification of education that I am most interested in is the factor of the professional education of teachers in our schools of pedagogy and teachers colleges. This brings the teachers in every department of the public schools into

closest relation with the colleges; but, more than this, it brings the teachers in the colleges, particularly the teachers in the departments of pedagogy, into direct contact with the problems and the work and the interests of the public schools. The increasing demand for collegiate departments and schools for the professional training of teachers is one of the best signs of an educational unity growing out of the common interest we all have in the common work we are all doing, the making of an American citizen.

THE DEPARTMENT OF HYGIENE IN PUBLIC SCHOOLS

BY DR HELEN C. PUTNAM, PROVIDENCE R. I.

Mr Chancellor, Ladies and Gentlemen: It is with much appreciation that I present this outline of a department of hygiene in public schools before leaders in higher education; for with your broad outlook over advanced and lower schools you have opportunities to estimate the possibilities of departmental methods, i. e. of special workers, and to observe the trend of all endeavor in that direction as necessary for progress today. Such survey enables you to discriminate between makeshifts and building for the future on enduring educational precedents and precepts. There is indeed the closest analogy between New York's superior and centralized control of its educational interests and that which I am about to propose for the development of hygiene in the schools of a locality. It is easily practicable in cities and towns; and we can reasonably believe that it will aid in evolving a desirable plan for country schools.

There have been four methods prescribed by law for instruction in hygiene. (1) The military, as in Sparta; and the unwritten laws of Lycurgus are dead with the prestige of his people. (2) The Hebraic, combining moral and hygienic with literary instruction; and this has resulted in a people who, wherever scattered among the nations, has been conspicuous for its freedom from disease, its family integrity, its temperance and thrift and its obedience to law. Our latest statistics and college settlement reports corroborate all history in this. (3) The gymnastic, as in Sweden and Germany, combining physical with mental training, for the aggrandizement of the nation. (4) In the United States instruction (called "scientific") for the

prevention of evils resulting from the use of alcohol and tobacco. But the truly scientific method is far from being on a working basis. Eventually it should mean: (5) The training of every child in health matters to such a degree as shall best help him to fulfil his possibilities of service to society.

The present status of teaching hygiene can be estimated with sufficient accuracy by reviewing recent reports of two important committees; and, incidentally, I mention the relative absence of articles on the subject in pedagogic literature during the last 20 years. In 1892 the National Educational Association appointed a committee of 10 distinguished educators on secondary schools. It recommended teaching the principles of hygiene through all grades till the last year of high school, when physiology should be taught. Ten lines in their report of 55 pages easily contain all they have to say on this subject.

The committee of 14, three years later, on college entrance requirements I find particularly significant. It was appointed to review the whole subject of lower education and "to carry into effect the recommendations of the committee of 10." This committee published a preliminary report giving a table of existing entrance requirements in 56 institutions. These have, of course, a potent influence on the programs of the public schools. Let us see how far colleges encourage the early teaching of hygiene.

Twenty-four out of the 56 (43%) mention physiology as either required (14) or optional (10) in their entrance examinations. Of the 14 requiring it, three ask it for the B. S. course only, and three others specify hygiene in addition. It is possible that the whole 24 include hygiene in their physiology; but only three out of 56 colleges indicate their attitude as to the object of any study of anatomy and physiology by the young, by specifying its practical application, viz hygiene. These three are the universities of Cornell, Colgate and Nebraska. This report is eight years old; but we may conclude from it that the influence of higher institutions toward encouraging the teaching of hygiene to the young is less than it might and should be.

The final report of this committee was based on reports of representative subcommittees of specialists. I do not find among the approximately 200 names of contributors to this

famous report any official representative of any medical or sanitary organization. The American Philological Association furnished the subcommittee of 12 on Latin and Greek; the Modern Language Association of America, the subcommittee of 12 on modern languages; the American Historical Association, the subcommittee of seven on the teaching of history; the American Mathematical Association, the subcommittee on mathematics. The teaching of science was assigned to a subcommittee of the National Educational Association itself, that invited assistance from various sources.

This final report was accompanied by press comments as follows: "Never in the centuries of our educational history has there been a tithe of the interest awakened"; "assisted by eminent associations organized for the purpose of advancing education"; "the results of four years of thought, study and investigation"; "the consensus of opinion of prominent educators, and conclusions of conferences, institutes and conventions that have zealously studied this question." The committee near the end of its report mentions physiology and hygiene only to apologize for not mentioning them on the ground that the committee on science had not.

This demonstrates emphatically a very great indifference in high quarters to the teaching of hygiene, an indifference that is remarkably curious, and inconsistent, when we consider the importance of personal health to the fulfilment of their programs and ambitions. Whether to attribute it to a paralysis due to "indorsed temperance physiologies" as textbooks; or whether to the unsatisfactoriness of such amateur attempts as have been heretofore made by the general teacher to instruct in this most complex subject, I can not say. But I believe there are excellent reasons for concluding that it is due chiefly to hopelessness and helplessness from incompetent teaching. In a few states recently schools have regained or retained their freedom to choose textbooks, hours and other pedagogic details of teaching "temperance physiology"; this by a wise cooperation between the parties concerned that all states should emulate.

As to the second reason, poor teaching; let us then have good teaching. That we have not had is the fault of officials who in

their shortsightedness are making unreasonable demands on our much enduring general school teachers. We are expecting of all these women, the majority under 35 years of age, the great majority with only a high and normal school training, for salaries from \$200 to \$700 (the average salary of public school teachers is, I am told, \$270)— we are expecting an orderly room (but with a heavy atmosphere which they can not control), sympathy, earnestness, enthusiasm if possible, cheerfulness, expert teaching of six or more indispensable branches; in addition, calisthenics, playground supervision, nature study and science teaching, child study, music, drawing, and attention to morals and hygiene: a program that a little later in the pupil's life is carried out by a dozen special instructors with financial outlay in proportion.

We are expecting from all these women what the exceptional man could rarely do, and would not if he could. The few lines of effort to which men in the grammar schools have promptly reduced their work illustrates that; as well as the public schools of several countries of Europe where the teachers are men, as a rule, and where the departmental method has obtained for many years. Specialization is characteristic of man's work, and largely accounts for its better quality. It is not so much superior ability as freedom from the distraction of many varieties of duties — concentration — that improves the quality of any work.

In several sections of our country many American women of good families, who might well fit themselves for teaching in the younger grades, choose office work and other business, because of this miscellaneous scattering of effort that hinders excellence and progress in any one direction, ignores individual capabilities and results in a monotonous level of details, which becomes drudgery. No intelligent college woman is content so to dissipate her energies and lower her standard of good work. The same salary now paid the general teacher would seem more worth while to her (the college woman) if she could follow the line in which she is specially qualified, thus producing desired results and growing to higher positions; for in science the possibilities are unlimited for even the small workers who know how. The practiability and desirability of departmental work

are already demonstrated for children of these same ages in private and technical schools, in vacation schools, and in public schools in Europe. Why should our public schools avoid it?

Surgeon General Wyman, the head of the Public Health and Marine Hospital Service of the United States, said to me a few days ago:

Our service has established satisfactory quarantine laws, the national laboratory for studying communicable diseases, and some other things. I believe the next thing to do is to teach hygiene to the people; and I do not know any better way than to teach it to the children in the public schools. We will gladly cooperate to accomplish it.

The American Academy of Medicine, devoted to medical sociology, gave a session to the discussion of this subject in Washington last month. There was unanimous dissatisfaction with the actual position of hygiene in the schools; unanimous agreement as to present day necessity for effective instruction of the people through the schools; but how to secure such instruction was not easily apparent. The academy appointed a special committee, of which I have the honor of being chairman, to report further on the subject at the next annual meeting; and I shall be grateful indeed for all assistance I may receive from this distinguished convocation. One section of the American Medical Association at New Orleans last month also appointed a committee to report on conditions in the public schools affecting the physical and mental health of school children. These facts are a few of those indicating the attitude and growing interest of the profession in this matter.

Because of the time limit I must assume that you are already familiar with the data relating to the health of school children published by medical inspectors chiefly of Sweden, Denmark, Germany and the United States. I assume also your acquaintance with present conditions of public health (to which public morals are closely related), in cities particularly, and specially with reference to communicable and nervous diseases; and therefore with the present imperative need for instruction in laws of health, that preventable ill health may be prevented.

The head of the department of hygiene in public schools should have an academic degree, a medical degree, and experi-

ence in the intimate relation of a physician in the homes of the people; unless he has had a few years of this, his efforts will be as much along theoretic lines as are those of most teachers, striving to prepare children for a life whose environments, ambitions, temptations, they know only in very limited extent, much of it at second or third hand, much of it not at all. Neither are they able to follow up and test the results of their own teaching in the great majority of cases.

In addition to these common qualifications of physicians, he needs training in his proposed specialty, school hygiene. He should have intelligent acquaintance with the history and philosophy of education. He must have sufficient knowledge of the principles of pedagogy, the methods and facts of child study and their practical applications, in which German physicians have done much more than American; all of which means a year's work at Clark University for example. He must have made scientific study of body movements and the practice of educational gymnastics, such as the Royal Central Gymnastic Institute in Stockholm provides for physicians. Our public school gymnastics, quite as much as the "science teaching," is lamentably handicapped and discredited by lack of scientific direction. He should supplement this with study of games. He should make a special study of methods of ventilating, plumbing, school architecture and furnishings. His advice will be needed by school committees of business men who incline to trust plumbers, manufacturers and architects according to their commercial standing or the value of their political influence, neither being a gage of their intelligence in hygiene. Such men will estimate him shrewdly according to his technical knowledge and practical common sense. The influence of his position will rise or fall with the soundness of his personal attainments, with his tact, social address and executive skill.

He should associate as assistants a staff of college women and men, of whom our leading educators earnestly desire more in elementary schools, who have taken full courses in natural sciences, including physics and chemistry, thus indicating the direction of their abilities; for it is quite hopeless to attempt to create good scientific teachers out of people whose inclinations and habits have been formed only or chiefly by literary and

mathematical work. They must also have had a normal course and, if possible, one in hygiene.

His assistants for gymnastics and games, including swimming, which many English day schools give children, and for the study of foods and their serving and some other desirable lines of domestic and municipal hygienic housekeeping, should have had their training in special schools, of which there are several. This should be liberal enough, I think, to include ideas of the *possibilities of after school hours, Saturdays and vacations*. Provision for public playground supervision could well be made from this office, for no other will have an equally intelligent and consistent interest in children's amusements.

His conception as an expert of his courses through the grades should enable him to assist in all technical matters and effectively guide his staff. His should be no "arm chair" office. He himself should teach the graduating classes of high and grammar schools at least in a few lessons. If time does not permit both, then certainly he should meet the grammar graduates, for only $\frac{1}{4}$ of pupils continue into the high school; and these $\frac{1}{4}$ both by their lesser education and their probably more harmful environment, need the best wisdom he can give them.

Just what the department of hygiene should teach, in what grades and how it should be taught, the experiments of one thus organized will demonstrate. We can await the results with confidence, and with special interest because it is practically an unexplored domain, on which the amateur efforts of the general teacher have thrown little light. I prophesy that these specialists will depend much less on books, and much more on practice and demonstration to impress hygiene on the future lives of pupils.

School inspection for communicable diseases is undoubtedly the function of municipal boards of health, for the protection of the community; but practically it must be made by the same inspectors who report on defective eyes and other physical ailments interfering with normal progress. Shall it be by the municipal or by the school health departments? In either event there should be cooperation. It is possible that methods may advantageously differ between the small city and metropolis.

I believe it would be wiser to have all medical inspection of

school children under the superintendence of the school physician, who would be responsible to the superintendent of health for reporting specified diseases. The reasons for this belief are:

1 Knowledge of individual health conditions is essential to the school physician's proper direction of the school surroundings.

2 The course in physical training on an effective basis will bring in frequent contact with pupils instructors specially trained to detect the common school diseases, anemia, innutrition, defective vision, hearing and respiration, unsymmetric and other imperfect development, the latter to a greater extent than the general practitioner, since they are those which gymnastics are suited to remove or lessen. In all cases an expert is at hand to consult.

We should bear in mind one consideration, a very important one, viz that, because of the influence of such a department among them, the whole force of teachers will quite unconsciously become better informed, and more alert to cooperate by better practice of hygiene and observation of details.

3 A staff of medical inspectors chosen, instructed and held up to a standard by a specialist in school hygiene, as city health officers are not, for the purpose of looking over new children on opening days, and to be called on for service in any special need, will in addition to this preventive and direct service to the community, contribute reliable material of scientific and educational value, trustworthy as much of the present crude and irregular work is not.

I have heard from teachers many expressions of appreciation of the school nurse who visits the schools daily to do up cut fingers or perform any other little emergency service; and who when desirable follows children to their homes to show mothers what to do for them, and thus hastens their return to school in proper condition. Certainly one of the most important functions of a department of hygiene is to teach the homes. To a varying and limited extent this can be done both by a school nurse and through mothers and fathers clubs with simple practical talks and demonstrations.

The relation of our proposed school physician to the superintendent of schools would correspond with that of college professor of hygiene to the college president. Both, selected for intelligence as well as expert capacity, are working for the same end. The superintendent of schools is the official head of that branch of the city government. The professorships are to provide the several lines essential to public school education under him. The department of hygiene would be one. In time, others will evolve.

The relation of the department of instruction in "applied physiology" to "science teaching" is of importance. Coordination is demanded throughout school programs to economize time and strength for the best advantage of the child. It is specially practicable here. Every liberally educated scientist can appreciate the possibility of demonstrating certain fundamental principles, processes, facts, in biology (including botany and zoology), physics and chemistry, that, while opening the child's mind to these subjects, can be also utilized for his comprehension of hygiene. No one will deny that this is the applied science most generally used. Therefore to coordinate these other sciences in the lower grades with this fundamental need is right. Later in its education, if the child goes on, the sciences will be more differentiated as its increasing capacity for more specialized service in society renders it desirable. We might add that, with the influence of the scientific head of this department on the teaching of these allied sciences, its quality would probably improve. At present scientists are almost as discouraged as physicians over the public school work in their special subjects.

Let us now consider briefly the possibilities of establishing this department. If our higher institutions would range themselves on the side of social progress by requiring for entrance creditable information in practical hygiene, a great impetus would be given to popular instruction in this essential of right living.

Its formal establishment can be brought about in three ways. In a state so fortunate as New York in having a strong central organization to guide its educational policy it rests with this organization to initiate the experiment. In the very great ma-

jority of cities a much more difficult method must be pursued. Public sentiment, led by an educated minority, must be focused on city government, influencing party bosses to secure an appropriation for this purpose, and on political school officials that they may expend it according to popular demand. The result will be, in practically every successful attempt, much personal disgust, friction and dissatisfaction; and a compromised measure wasteful of money and of efficiency, and deferring the well organized department to the second half of the 20th century. The agitation will effect some education of public opinion; but I think at a too great sacrifice in these days, for public opinion will also be enlightened by the third method more correctly and rapidly without the cost—a compromise and a postponement.

A department of hygiene can be established by private endowment. No less good will follow the endowment of departments, erection of gymnasiums, laboratories, establishment of memorial school gardens, playgrounds, swimming tanks, for the use of public school children, than follows such gifts to higher institutions.

There is one objection I have known to thwart the wish, distrust of the ability to administer such funds according to high standards by the kind of men placed in office through party elections. This is a proper objection at our present stage of municipal evolution, but it is also possible to do away with it. A benefactor could place the administration of a fund for maintaining a department of hygiene in the hands of *ex officio* authorities not subject to political machinations.

For a city of 200,000 inhabitants a fund of \$300,000, yielding an income of \$12,000, could be administered by a committee of five, consisting of the president, professor of pedagogy and medical director of the gymnasium in the nearest colleges, two members elected by and from the city's largest medical society, and two advisory or associate members, the superintendents of health and of public schools.

This associated committee of seven could announce through the medical and public press that two years from date they would nominate to the city school committee a candidate for the office of school physician for a period of five years, at a sal-

ary of \$3000 a year; that there would be an annual sum of \$9000 available for assistants etc. If the school committee should transfer gymnastics to this department, where it unquestionably belongs, such amounts as have been appropriated for this or any other work so transferred, should be added to the \$9000.

This committee would stipulate the conditions of the candidacy :

- 1 The degree of B.A. or B.S. from a reliable college
- 2 The degree of M.D. from a reliable college
- 3 Five years of private (not institutional) practice
- 4 Certificates from reliable institutions of having creditably completed courses in pedagogy (including child study) ; gymnastics (including play) ; school sanitation ; in all equivalent to at least two years of graduate study
- 5 A thesis on the methods of such a department

Of course the personal equation will have to be provided for.

Such an official, if elected by the constituted authorities of the city, will be wholly responsible to them. The advisory holders of the purse strings would use their discretion at the end of five years as to renewing the nomination. It is not reasonable to imagine insuperable friction and collision.

Just now, when leaders in both professions, medicine and teaching, seem inclined to cooperate for better public health, the advantage of such an endowment is that in the hands of recognized authorities it would establish a model, a standard, suggest an ideal and demonstrate its practicability. It is easier and wiser for these united professions to start right than to reform a wrong start, specially in politics. A school politician of influence once advised concerning another matter: "Keep it in your own hands till it has developed to about what it ought to be, for we can't experiment. We are too much criticized. We must use cut-and-dried methods." This is one reason so many private schools excel the public. They command more special teachers, and are freer to experiment and so progress.

Not long ago I was searching English medical journals published about 1862 for the methods of surgeons and their theories just previous to the practice of antiseptis. I found many interesting papers by surgeons of keen intelligence and trained

ability. The best knowledge of the time was well summed up in an address, "The Management of Patients after Surgical Operations," by Sir James Paget.

He details their methods for conducting operations to successful recoveries. He describes the difficulties that arise; among them none more frequent, mysterious and dreaded than the "strange shudderings" that ushered in "some of the most fearful maladies" very often ending in death. They came after the most careful operating, among rich or poor, young or old, in hospital or out. We know that those rigors were symptoms of blood poisoning; we very rarely see them, and the awful mortality that followed surgery and childbirth are things of the past; for Pasteur demonstrated their cause to be the entrance of micro-organisms into the system; Lister, our own Oliver Wendell Holmes and others have shown how to prevent it—the simplest fundamental principle of safe practice today. No battle fought by soldiery ever blessed the world one hundredth as much as this conquest of a foe that had slain millions of men, women and little children; and no great general deserves our homage as does Pasteur, and the physicians who promptly applied his discoveries to the saving of precious life.

As we read Sir James Paget's description of conditions around him 50 years ago, comprehensive, analytic, strong with earnest study of an educated forceful mind impelled by every motive of a humane and generous heart to solve this horrible mystery—for on all their improvements "this cloud rests like a dark pall," he says; as we see every paragraph, almost every sentence, pointing to the true answer that in a few years became perfectly clear, we realize perhaps as never before what discovery really means, what a curious phenomenon mental blindness is, and the value of demonstration, and how long it takes to "arrive."

Many years after, Sir James, who lived through more than 80 years of remarkable discoveries and revolutions in scientific thought, said: "It would be a very useful book, I think, if some one would write a history of the oversights of things which have been under men's feet, plainly before their eyes." One of the lessons such a book would teach is to resurvey one's own field for neglected opportunities, and for solutions to difficulties.

I have lately been reminded of my former reading while reviewing the Regents reports looking for discussions on the teaching of hygiene and science in the public schools. There, too, I found much interesting material presented by the ablest instructors. They narrate their attempts. They find their progress bristling, even barred, with difficulties all pointing to one solution, for they all condense in the last analysis into—*incompetent teaching*. I found, too, Huxley's "science is trained and organized common sense" often quoted.

Then let us be scientific in teaching science and, first, cease requiring every teacher in the public schools to be a good or even passable teacher of hygiene, regardless of temperament, on a superficial training, and lacking an established system to follow, such as centuries of experience in literary and mathematical teaching have created. Second, do what for scores of years is demonstrated to be the right way in every other kind of school, try the departmental method with its expert head and special teachers.

I heard President Eliot say last winter:

It was in 1776 that Harvard College—then no more than a good high school—abandoned the method of teaching all subjects to one class by one man. The American public school system bids fair to be nearly 150 years behind Harvard College in adopting the departmental method—a method that develops in both teachers and pupils a growing interest in their work, and increases greatly the personal influence of teachers.

This problem, how to teach and practise hygiene in the public schools, is not less pregnant with blessings to humanity than that other problem now passed into history. It waits for its Pasteur and Lord Lister to demonstrate the way.

The Empire State is proud of its record as a leader in many advances in education. Your historian has justified your title by quoting the "imperial powers" of the superintendent of public instruction, and of the Regents "the imperialism half feudal in its type." Such centralization of influence and of authority enables New York to lead again less favored states by initiating this department in one of its cities. It should not be allowed to fail for lack of a head selected for true scientific and executive ability, nor for lack of properly qualified assistants, lest critics attribute failure to the method rather than to

bad management. Practical difficulties in details will arise, but chiefly of the "we never have" order. They will disappear with the consistent effort of a few who have clear conceptions of the aim and of the underlying principle.

Formal discussion

Dr James J. Walsh—I think all of you will agree that Dr Putnam has put very well some of the facts with regard to what is needed in the public school teaching of hygiene at the present moment. There is or there has been supposed to be a teaching of hygiene. That supposed teaching of hygiene has been the butt of medical editors in this country ever since it was introduced. It has consisted of a neglect of the main and important features of hygiene and of physiology for the purpose of calling an exaggerated attention to certain features of supposed hygiene and physiology. Educators surely have read within the last few weeks the report of the committee of 50 for investigating the liquor problem and have there found confirmation of what medical editors have been dinning into the ears of the medical profession in this country for many years, the fact that, after the most careful investigation, specialists are not ready to accept anything or very little of what has been put in the textbooks for children to accept as facts in the teaching of hygiene, because it has mainly consisted in saying something with regard to the supposed abuse or dangers of the abuse of alcohol. This, after all, is a very limited way of looking at the question; and yet it has been the principal part of the teaching. This is unfortunate, and surely there must be some way of ameliorating present conditions. A great many things have been taught as facts that are not facts at all. As a great humorist some years ago said, "It is not so much the ignorance of mankind that makes them ridiculous as the knowing of so many things that ain't so." We have been teaching our children a great many things that "ain't so." There have been great advances in physiology during all these years, and they have been told nothing about them. It is the custom to think perhaps that this subject is more or less connected with disease or involves gruesome ideas of hospital work or of surgery and that sort of thing, and we fail utterly to make popular this import-

ant subject. There are many things in it that are of the extremest interest. Much has been done to popularize the vast achievements of modern science and to point out its value to man. Surely the one science that is worth while to popularize before all others is the science that has to do with the health of man. Let us recall a little of what the history of a century of progress in hygiene is saying to us at the present moment. There are 600,000 people, it is said, living in London today who have no business being alive. They would not be alive if the death rate of '85 continued. The head of the department of health of Chicago announced the other day that there would be many thousand fewer little graves in Chicago this summer than in 1895, though the city has been growing in population. Why will they not be there? Because the great science of hygiene has been developed. It has been developing from the very practical side, and we have been supposed to be teaching something about it; but we have been teaching the children nothing of these great facts and of the history that has been made in this matter, and that is after all the main thing. We shall have to teach it, and it will require a scientist to teach it. We see daily in the newspapers a number of things that show us how interesting this subject can be made and how wonderfully attractive it will be too. Take for instance the epidemic of cholera that scared us in 1892. It came into Hamburg, and many thousands of cases of the disease developed. Below Hamburg is the town of Altona. It takes its water from the same river into which, only six miles above, Hamburg empties all its sewage. There were thousands of cases of cholera in Hamburg, but not a single case developed in Altona. Why? Because great German hygienists and specialists were in charge of the water supply, and they were doing the great work of filtration and making it absolutely safe for the people of Altona to drink the river water. We have lots of such examples, and people surely should learn something about them. Fifty years ago the scourge of great cities was typhoid fever. The death rate from the disease in such cities as Munich and Vienna was fearful. As the result of improvements in water supply, there is now scarcely any typhoid fever in these cities. Typhoid fever in their great teaching hospitals is looked on as a medical curiosity, and the medical

students from all over the city come to see it. Why? Because this century has been teaching the principle, that the avoidance of epidemic disease is possible, and it can be attained by the enforcement of proper sanitary regulations; and yet in this country some of our large cities are the prey of this old-time scourge, apparently unable to do anything with it. Would it not perhaps be possible to do something with it, if there were a municipal and civic spirit in the people, if they had been taught that there is a possibility of its prevention, and if they could put the responsibility for its prevention in the right place? We have only one city that is the shame of the world in this matter of typhoid fever. It has the Liberty bell and Independence Hall, but beyond these no semblance of liberty or independence. Some years ago it was going to have a filtration plant, and one of the political bosses boasts that he held it up in the courts. During the delay many thousands of people suffered for at least three months from typhoid fever, while other thousands died from the disease, in order that a political ring might have a finger in the rich pudding that has been made out of the filtration plant. Is it not possible that, if there should be a general realization of the awful responsibility in these matters, something could be done with political corruption as well as with physical corruption? A great sanitarian has said that, when a member of a community dies of typhoid fever, somebody ought to be hanged; there is criminal responsibility somewhere. It is perfectly clear where our typhoid fever comes from. It can come only from the contamination of water by the excreta of a typhoid fever patient; hence somebody has been criminally negligent in allowing that contamination to take place. Surely, this ought to be taught in our public schools. More than that, even the young must realize the necessity for cleanliness in general, and that important scientific principles are concerned in this matter; and it must be taught from a scientific standpoint. The teacher must be grounded in the science and must realize the extent to which that science has grown. We have had an impressive lesson. The Americans have been of great benefit to the world in Havana. We have perhaps conferred the greatest benefit on the world, specially the tropical world, that has ever been conferred on it. For nearly two years now there has been no

case of yellow fever in Havana. Why? Because the American Marine Hospital Service succeeded in finding out how yellow fever was spread and have instituted proceedings that prevented its further spread. It cost three lives; but it is now absolutely sure that yellow fever will be wiped off the face of the earth, not because they did something to improve the general cleanliness of the city, but because they found the distributing agent in the apparently trivial little pest, the mosquito. We realize now more than ever the importance of teaching the distribution of disease by living creatures. Besides flies and mosquitos, many pet animals will fall under the ban. Much nearer home than Cuba the lesson will have to be learned. There are in our State of New York every year, it is said, 20 to 30 deaths from hydrophobia, because somehow it is supposed that every citizen of this country has the inalienable' right to property in a wandering dog that goes where it will, that is absolutely no good in any way that one can see, that stands as a great institution which must be left alone. Is it not possible that we could have some teaching that would remedy even this? We know now absolutely what the cause of the disease is, we know the origin to which it can be traced in each case: shall we not teach its prevention?

Then within the next few days we shall have in every large city in this country 15 or 20 deaths to the million of inhabitants from tetanus, or lockjaw. We shall have them as a result of the celebration of the glorious Fourth. Why? Because various forms of fireworks and the toy pistol will inflict injuries which will become infected with street dirt; and in the street dirt, because the horse travels on our streets, we find the tetanus bacillus.

When the first symptom of the disease manifests itself, the case will be practically hopeless and death inevitable. Must this holocaust of precious young lives be made every year for lack of proper teaching? Something of all this surely will have to be taught in our public schools from the scientific standpoint; and I think I have shown that it can be made interesting. These are facts in the life and science of the day; and pupils should know something of the men and heroes that have done these things and not confine their knowledge to the men that have

won battles. History is not the story only of the men who have ruined human lives. There are great saviours of humanity, whose fame is not from camp and battlefield, who are worthier ideals than the military heroes of an age which we hope is passing.

General discussion

Prof. Duncan C. Lee — The subject has been instructively discussed by Drs Putnam and Walsh. I have accepted an invitation to speak for five minutes on this topic, not because I am a pedagogic specialist in this field, or a physician, for I am neither, but because as a citizen I feel a deep interest in the subject of the education of the young in the care of their bodies.

From an examination of the advertising columns of our state weekly and daily papers, full of thousands of advertisements dealing with patent medicines, compounds and supposed remedies, one may well infer that health is regarded as a very important matter by the general public. But wise prevention has not been so widely advertised or so effectually taught. There is more money in the advertising of remedies. The necessity of teaching hygiene at an early age has not been impressed on the public, or, I may add, on educators. We have not fully realized the need of a sane, nontechnical teaching of hygiene in the public school.

My message today is to make this teaching of hygiene practical. Simply that. I do not care much for the boy's knowing how many bones there are in the body, and not knowing or caring about the cleansing of the body. I was once planning to take some boys into camp, and one of the requirements was that every boy should provide himself with a toothbrush. Two brothers came and wanted to know whether they could have one between them. Some part of their early training in hygiene had not been practical. When I was in the volunteer service we had difficulty to get a majority of the company to bathe oftener than once a month, if that often. There were several who had to be forcibly carried to the shower bath. These illustrations show the lack on the part of many boys and men of a realizing sense of duty to their own bodies.

I liked Dr Putnam's speech because it outlined in a broad and comprehensive way what those cities that have means ought

to do. I should prefer nurses as instructors to the professional doctors. But many of us are going back to the smaller towns; what may we carry from this discussion that will make it useful to us? From my remarks I wish you would gather this: to carry to those who are bearing the burden of education in your town the teaching principle that the girls and boys under their care can not be good girls and boys unless they are clean in life. The first test of anyone should be, Is he habitually clean? The good citizen is the clean citizen and the advocate of cleanliness. I would make that a part of the daily work of every teacher till the boys and girls illustrate first of all the gospel of being clean. This gospel can be learned by all; not only those in the great cities under the scheme outlined by Dr Putnam, but in every high school, in every town of the State. It is applied physiology, and it should be taught universally.

I belong to that old school that believes it to be the duty of every teacher in every grade to teach morals. I also belong to the school that teaches cleanliness to be a part of morality. How should this work out? So that, when a boy goes home at night, he knows what his duty to his body is, so that he goes through his daily routine and all the duties of his life realizing what he owes himself in the care and cleanliness of his body.

The student can not be examined by the Regents on it, and no money will come to the school from the State in return, but it will tell in the morals of the community; and surely no greater return could be desired than this. No greater responsibility rests on the teacher than to see that such information is inculcated as will make life healthier and happier.

If the men of the future are to be virile and able to do man's work, and if the women of the future are to be able to bear the increasingly larger woman's work, they must be taught as boys and girls that the keeping of the nails is just as important as the passing of the examinations of the Regents; that the taking of a daily bath is something every gentleman and every lady should attend to. These are some of the important though small things that ought to be impressed in a practical way by every teacher who comes in daily contact with boys and girls.

Dr Charles McIntire—Some one has very well said in effect that progress can be brought about only by dissatisfaction with

our present condition and the reaching out toward an ideal. I think there is ample evidence of a dissatisfaction widespread and very prevalent regarding the teaching of hygiene in our public schools. President Hyde of Bowdoin College, in a book published a year or two ago, very pleasingly but very emphatically called our attention to two classes of idealists, those who are merely destructive and who simply point out that which is ill, and those on the other hand who are constructive and desire to show a better way. In this book he quotes Brown-
ing where he says:

The common problem, yours, mine, everyone's,
Is—not to fancy what were fair in life
Provided it could be—but finding first
What may be, then find how to make it fair
Up to our means ; a very different question.

And I think the principal address of the morning on this subject has given us a very excellent example of a constructive idealist, who shows us something which we should strive to reach out after and to attain unto. I do not think that we shall ultimately arrive at all the details presented by the paper, perhaps the author of the paper herself after four or five years will see various things in which she would change it, but it is the reaching out after better things, the seeking for the ideal. It was Oliver Wendell Holmes, in a letter which he wrote once on a time to the historian Motley, who divided all humankind into two parts, those who reach out only for the actual and those who stretch out their hands after the possible. Surely in such a representative body as the University Convocation of the State of New York those who are stretchers-out after the possible should be in the great majority; and I hope you will take home with you this address which Dr Putnam has placed before you and strive after that which is both profitable and practical.

Regent Albert Vander Veer — *Mr Chancellor*: While I can not admit having prepared myself for the discussion of the very excellent paper presented by Dr Putnam, yet I wish to give my earnest indorsement to all that she has said. It is a subject that in the practice of medicine is identified under the term of preventive medicine, and, if the points the writer has brought out so prominently could be given intelligently and in an at-

tractive manner to school children, it would lead to a lessening of the ills from which they suffer during their student days, to a marked degree. I wish to emphasize particularly the point Dr Putnam brought out in reference to the necessity of the professional preparation of teachers, who undertake to instruct in this branch of the school curriculum. Let us heed the prominent manner in which she has portrayed the inefficiency of those who have been assigned to do this work and the ease with which those who are in control are willing to have the subject passed by, content simply to have it announced in the catalogue and with as little real instruction as possible, so long as it appears the subject has been presented. The teachers who perform this duty should be well paid, and not easily transferred from one department to another. This is a subject that should be presented in an attractive manner, and will command the attention of the best instructors when once it is fully appreciated and made apparent that it is absolutely necessary to carry on such a course of work in our public schools. Even medical colleges of today are not performing their full duty in continuing medical studies in this department; and this has been very pertinently recognized by Dr Lewis, commissioner of health of this State, who, in coming in contact with health officers from every town, village and city, has endeavored to bring about a better understanding of the subject by inaugurating an annual convention of health officers, and those in control of health boards. He has already had two annual meetings in which there has been a large attendance, and very able papers presented on the subject of hygiene, sanitation and all that pertains to these subjects. Some of these papers have touched on the very subject referred to by Dr Putnam, but none in so concise and practical a manner. That the State of New York is thoroughly alive to the importance of preventive medicine is illustrated by the fact that incorporated in the wise work done by Governor Odell is the state laboratory for the investigation of tetanus, tuberculosis, diphtheria, pneumonia and similar infective diseases, where an effort is made to distribute to the boards of health the antitoxin of diphtheria, tetanus etc., for the prompt treatment of these diseases among the poorer classes. Much good is likely to result from an investigation of

these subjects, particularly that of tetanus. Had I time, I would like to dwell on the excellent work that is being done in this city through the nurses employed by the Guild for the Care of the Sick Poor, who do so much in instructing the less fortunate people or patients in regard to ventilation, proper care of clothing, washing of infants, bathing of the children, etc., and who accomplish real practical results by spending an hour or two a day with the sick and convalescent. It is wonderful to note how quickly young girls in a family will take up and carry out instructions that add so much to the comfort and relief of the suffering ones. I believe that either this department of instruction should have a chair that is endowed or the compensation should be such that teachers can continue in one institution to carry out the experiments and illustrations that will make the subject more enjoyable and impressive. Possibly much good will yet result in this line from the research work that will be carried out in the Carnegie Institution, or Rockefeller Institute for the Investigation of Disease. From these institutions we are doubtless to receive much in the future.

I can only say I hope this paper will be carefully studied by all who are in authority, and who are interested in this subject, and then much good will result. Our thanks are due Dr Putnam.

SUPERVISION OF EDUCATION IN NEW YORK STATE

Sup't F. J. Sagendorph presented the following resolution:

Resolved, That the best interests of education in the State of New York demand that all supervision of the educational interests of the State be exercised by a single department, and that that department be so organized as to be as free as possible from the influence of party politics.

This resolution was seconded by Prin. T. H. Armstrong.

Prof. Duncan C. Lee—I rise to question the use of the words “as free as possible.” No one is more anxious than I am to have education elevated and put far from the bickerings of party politicians; but we all know that this is a great problem, that a large number are interested in it, and I for one would like to see a better opportunity than is afforded during the next few minutes for the consideration of this resolution. I would sug-

gest that, instead of voting on it at the present time, those of us who now hear it for the first time be given an opportunity to think it over till later in the day in order that we may come to a better understanding as to what it is wise to vote on. I move that the consideration of this resolution be deferred.

This motion, being seconded and put to vote, was declared lost, and the resolution offered by Superintendent Sagendorph was carried with but one¹ dissenting vote.

EDUCATIONAL EXHIBIT AT THE ST LOUIS EXPOSITION

Prin. Myron T. Scudder—At the state association last year it was resolved that a concerted effort be made on the part of all the educational organizations of the State to send to the University exposition at St Louis an educational exhibit that will fully and creditably represent our educational theory and practice. The result of that resolution was that the following committee was appointed:

Chairman, Myron T. Scudder M.A., Normal Principals Council
Secretary, Henry L. Taylor Ph.D., University of the State of New York

A. M. Wright M.A., Department of Public Instruction

F. D. Boynton, State Teachers Association

Andrew W. Edson, Council of School Superintendents

Calvin W. Edwards, Association of School Boards

F. F. Fosdick, Associated Academic Principals

George H. Walden, Council Grammar School Principals

H. J. Schmitz, Science Teachers Association

A. C. Hill Ph.D., Training Teachers Conference

Erwin B. Whitney, School Commissioners and Superintendents Association

This committee urged on the commission which has in charge the interests of New York State at St Louis and of which E. H. Harriman is chairman, that a director be appointed, and nominated Mr Ellis. He was appointed June 10 and has entered on his duties. The committee now holds the relation of an advisory board to Mr Ellis and as such held a session yesterday afternoon.

¹ By a friend of the resolution who said he supposed he was voting against postponement.

Now one of the first questions that came up was "What shall be the general plan of this exhibit?" Clearly it is neither desirable nor feasible to send a great mass of material in which there would be endless repetitions and monotonous expanses of children's work, that would weary observers and even prevent them from getting a clear idea of our educational system. Something must be done, not only to curtail this mass of material, but to plan the exhibit, and it is Mr Ellis's duty, with the advice of the committee, to attend to this. It seems to the gentlemen who are officially connected with this matter, that our exhibit should constitute an illustrated course of study contributed to by all educational institutions of the State, showing our theory and practice from the kindergarten to the university, including also such extension movements as the educational work of the Young Men's Christian Association, the schools connected with department stores and factories, the New York Nautical College and the Schoolship St Marys.

Director Ellis—*Mr Chancellor, Ladies and Gentlemen:* I am present under instructions from the Louisiana Purchase Exposition commission for this State to bring their greetings and to say that, recognizing the importance of the claims of the state educational interests, they have made an adequate appropriation for an exhibit of the state educational resources at the St Louis Exposition.

New York State will send to St Louis the best exhibit it has ever contributed for many reasons—because there has been rapid and continuous progress in every branch of education since the last exposition in which the State participated; because there is a better understanding of the "exhibit idea," so called. Educators know better what to prepare, how to prepare it and how to display it; because for the first time in the history of expositions there is to be a building devoted solely to educational interests, located in the center of exposition activities and a suitable structure for the display of the educational resources of the world. The director of education, or rather the chief of the department of education for the exposition, is the Hon. Howard J. Rogers, a New Yorker, who has been signally successful in exposition work, and I am sure that he will

take a warm interest in whatever New York does, and that we shall receive the utmost consideration at the hands of the exposition authorities.

Principal Scudder has outlined the general scheme of exhibit to be followed, namely, that we shall endeavor to send a well rounded exhibit of the educational resources of the State as they are today, eliminating useless repetition of work. I anticipate that there may be some criticism—perhaps I ought not to say criticism, but rather regret that this course is to be followed, inasmuch as there are many excellent city systems within the State the authorities of which would like to exhibit each system as a unit. I hope that such local pride will be obliterated in the larger State pride, and that we may have the cooperation of educators throughout the State in gathering an exhibit which will clearly demonstrate the supremacy of the Empire State in educational lines.

If I may quote Mr Rogers, "I consider the great bane of educational exhibits has been useless repetition." I believe that should be avoided and I want to appeal to you all to assist us to this end. The advisory committee will be closely identified with the work the director has in hand; but I should like the educators of the State to resolve themselves into a huge advisory committee and feel free to make any suggestion they may see fit. We can not promise to follow all the advice that is offered, but we can promise to give it careful consideration and act as seems best under the circumstances. And at this time I want to extend to the educators of the State an invitation to make the State's exhibit at St Louis their headquarters when they visit the great exposition next summer. We shall extend them every courtesy within our power and place at their disposal such comforts and convenience as we can.

NECROLOGY

REPORT OF COMMITTEE, C. W. BARDEEN

Townsend. Mar. 9 the Board of Regents lost its oldest member, Martin I. Townsend, "the grand old man" of Troy, whose presence has been of late years only a remembrance, but a remembrance always delightful and stimulating.

COLLEGE PRESIDENTS

Among present and former presidents there have been two deaths.

Gaines. Feb. 2, in Canton, aged 75, Absalom Graves Gaines, professor of moral philosophy in St Lawrence University, of which he was president 1873-88.

Putnam. Ap. 24, in Buffalo, aged 84, James Osborne Putnam, chancellor of the University of Buffalo.

Allen. In this connection should be mentioned the death Oct. 26, aged 76, of Abigail Ann Allen, widow of President Allen, and emeritus professor of archeology, for 56 years associated with Alfred University.

COLLEGE PROFESSORS

Rood. Nov. 12, in New York, aged 71, Nicholas Rood, for 39 years head of the department of physics in Columbia.

Haskins. Jan. 9, in Boston, aged 50, Charles Waldo Haskins, founder and first dean of the New York University School of Commerce.

Fuertes. Jan. 16, in Ithaca, aged 64, Estevan Antonio Fuertes, first dean of the engineering department at Cornell.

Shaw. Feb. 11, in New York, aged 57, Edward R. Shaw, former principal at Sayville, Greenport and Yonkers, and dean of the New York University, School of Pedagogy; and at time of his death superintendent-elect at Rochester.

Chester. Ap. 13, in New Brunswick N. J., Albert Huntington Chester, professor of chemistry and mineralogy at Hamilton, 1870-91, and since then at Rutgers.

Price. May 7, in New York, aged 63, Thomas Randolph Price, head of the English department at Columbia.

True. July 18, aged 57, Prof. Benjamin Osgood True, of the Rochester seminary.

NORMAL SCHOOL TEACHERS

Of those connected with normal schools, two notable figures have disappeared.

Morgan. July 13, aged 62, Gen. Thomas J. Morgan, formerly principal of the Potsdam State Normal, and afterward commissioner of Indian affairs.

Krüsi. Prof. Hermann Krüsi, who was recently buried in Oswego, was for 25 years from its opening a teacher in the normal school there. He was a son of Pestalozzi's coadjutor of that name.

PRINCIPALS

Among present and former principals of Regents schools, we have word of the deaths of the following:

Tilden. July 10, aged 70, John Newel Tilden, long principal of Peekskill Academy.

Clark. Aug. 6, aged 75, Lewis H. Clark, for many years principal of Sodus Academy.

Oliver. Sep. 7, in Kansas, James Oliver, principal of Fergusonville Academy, 1856-70.

Wright. Sep. 24, in Elbridge, aged 87, Truman King Wright, survivor of the famous twin brothers who came to New York in 1845, and taught 40 years near Syracuse, exerting an influence for the good, the manly, the upright, that can never be measured. His niece, Emma Cecelia, wife of Principal Benedict of Houghton Seminary, who died just a week before, was also a teacher whose influence was a blessing to her pupils.

Wise. Dec. 5, Edward R. Wise, former principal of the school at Rushville, and just graduated from Syracuse University law school, committed suicide, for motives unexplained. He was a superior student, of companionable disposition, of unimpeachable habits, with excellent prospects; but at 11 o'clock one evening he bade a comrade a cheerful good night, and within an hour shot himself fatally with a revolver.

Cole. In Wisconsin, Orasmus Cole, principal of Union Academy, Belleville, 1842-43, and for the last 27 years on the supreme bench in Wisconsin.

Beach. May 17, in Cortland, Erastus C. Beach, principal of Cortlandville Academy 1865-66, and afterward a successful business man.

York. June 7, in Vineland N. J., aged 74, Sidney Palmer York, principal of Amenia Seminary in 1856, and afterward till the Civil War principal of a girls boarding school in Virginia. He had since lived in New Jersey.

Wheeler. June 21, in New Springville, E. C. Wheeler, for several years a teacher in the New York city schools, but before that principal at Cincinnati, McGrawville and DeRuyter.

SUPERINTENDENTS

Good. Among superintendents in service, one death has occurred, that of William H. Good, of Rensselaer, in January.

The following are recorded among those who formerly held office.

Sandford. Feb. —, in Mount Vernon, aged 68, Jared Sandford, former deputy superintendent of public instruction.

Lathrop. Aug. 7, Dr Thomas Lathrop, former superintendent in Buffalo.

Bruce. Feb. 8, in Lynn Mass., Orsamus B. Bruce, former superintendent at Binghamton.

Birdseye. Mar. 2, in Oneida, aged 82, Lucius H. Birdseye, superintendent at Rome 1867-69, and principal of several schools in that vicinity.

Jones. Ap. 12, in New York, William Jones, assistant superintendent 1857-92.

Tuesday afternoon, June 30

WHAT THE WEST SAYS

BY HEADMASTER HENRY WHITE CALLAHAN, STATE PREPARATORY SCHOOL, BOULDER COL.

Early morning on the plains 30 miles from the foothills, rolling out from a blanket. Did you ever feel a blanket on the plains in the West? It is soaked full of sleep. When one corner drops over your feet and the other falls under your chin, that is all that you know till the lark wakes you up with his riotous song. He has the luxury of bird melody, this singer of the West. There is a rollicking joy in the bird as he ranges a limitless plain. You roll on your elbow and look over your toes to the east. Just daylight. And this sea is all red as his sunship peeps over the edge of the world. A coyote trots by, looking back, looking back; while the bronco from his picket noses the edge of your blanket. It is sage brush and greasewood and greasewood and sage brush, that soft green shade like an afternoon sea, stretching off to the circling eastern horizon. The

air is like wine. Along an arroyo the cottonwood shimmers red in the early light, while the red-winged blackbird sings an alto to the air of the golden lark. And to the west? The Rocky mountains, there they stretch; the snowy range, shouldered against the sky, all pink in the glow. Long's and Gray's and Old Baldy and Arapahoe and far to the south Pike's peak; below, the deep purple of the foothills, 30 miles away, and yet, so crystalline the air, it seems almost as though a stone might be cast against them. Above, a cloudless sky, so deep, so rich the blue it is as though the Mediterranean had never been.

And what is this West? It is sunshine; it is outdoors; it is health and life; it is give and take, with nothing behind; it is competition sharp and assistance generous; it is hospitality which has but one possible competitor and that is the South; it is the love of a land which has given you back the dear one who was going so slowly, so surely. This West? It is broncos and sheep and cattle; it is hard riding, good hunting and fishing, great mines — and prospects, too, with nothing in them but a laugh and a *go* at the next one, "I'll strike it tomorrow;" it is a sombrero or silk hat, corduroy or frock coat, laced boots or patent leathers, it matters not which or when or where, provided only there is a man inside.

The West believes in its star. He is the man of destiny who believes he is the man of destiny. The West knows the meaning of that statement, "Ye shall say unto this mountain, 'Remove hence to yonder place' and it shall remove." Now the eternal fixedness of the onward trend of things has different names from the varied points of view. Fatalism with its eternal ruin has blighted the Far East; determinism under the transcendant future of evolution is a bugle note of progress. The West *knows* that the future is assured. "The best is yet to be." The power of this thought is on every side. Individual limitations do not dishearten, death is not a pall. The first thing noticed in the West is the disregard of death. You are shocked at the almost flippant tone in which it is discussed. No Pilgrim of Plymouth surrounded by death during that awful first winter ever looked forward with more calm faith than

does the western rancher on his arid section. He smiles with serene contempt on the tenderfoot, who, looking out of his Pullman sleeper, remarked, "Live here? Why I would not live in this country for all the money in the East." This rancher knows the size of the tenderfoot horizon. Irrigation is not in the association of eastern ideas. Here in the East it is rain, rain and green grass, it is mud and potatoes, it is storm and wheat. Three hundred days of blue sky in the year with a beautiful land is not an eastern form of thought. As I stood on the summit of Gizeh and looked to the east and north, I seemed to see that great empire where civilization had its birth. In the Nile rode the ships of every nation on earth. At my feet lay the wondrous city of Memphis, glistening white in the afternoon sun. Here was Egypt, the mistress of the world, radiant under a rainless sky. Why? Away off to the north for 128 miles stretched a carpet of the most wonderful green which the mind of man can conceive. This was Egypt, Egypt the veritable gift of the Nile. The West looks away to that town in the midst of the Syrian desert, the town which was the first stopping place on the great caravan track from Damascus to the Euphrates. Beautiful it was as art and wealth could build for the home of man. It looks at Babylon with its hundred gates, its hanging gardens, its fabulous wheat fields, its commerce from Tarshish to Ind. Why Egypt! Egypt would be lost in the San Luis valley. Babylonian fields were but 400 miles long; while Palmyra would not cover a few sections of a Colorado wheat field. Here in our own land is an Egypt 1000 miles long, here is a Mesopotamia 1000 miles wide, with the Rocky mountains for its reservoir and the Mississippi and the Pacific for its shipping. The West believes in its star.

Another element of this western life I leave to you to explain. It may be the sunshine, it may be the outdoors, it may be a vitality such as is Switzerland, Norway and Sweden, it may be the high order of the everyday man, that quality which belongs to the frontiersman ever. I refer to the gay tone of western life. It is everywhere, in the miner's camp, in the cowboy's shack, on mountain and plain. They dance at every social function of church and state except the funeral. I counted 11 babies asleep on the settee that surrounded the hall at Gold Hill. The

Virginian and Lin McLean would have had no chance there because each woman finished her two-step at her own baby. The struggle and the fun go side by side. Great handsome fellows in evening clothes at the commencement ball. It was between the dances. "A cowboy must not be a baby." "What do you mean?" "We had an awful storm last August, and the cattle were restless, they pushed here and they pushed there, and wanted to stampede us, and round the bunch we rode and sang to them all night long. The lightning struck Jim Baker, and we saw him go down in the herd, and we knew we should find him, as we did next day, all trampled to pieces under the feet of the cattle; but that was no time to stop. We rode and sang to the cattle all night long." It was on the plain just west of the Nebraska line, two men were "laid over" for 24 hours. Only one train a day in that country. "What shall we do?" "Let's ride." We climbed down the ladder from our room. Here was the typical cowboy, laced boots, corduroy, flannel shirt, belt, leather cuffs and sombrero. Don't let any one tell you that the day of the cowboy has gone. "No, no horses in, but I'll run in a couple off the train." The time was set; the time came. Looked rather queer that there should be a crowd just to see the start, but, when two horses waltzed up to the shack on their hind legs, two men to each horse, the proceeding was perfectly plain. No. 1 tenderfoot looked at no. 2 tenderfoot and no. 2 tenderfoot returned the complimentary gaze with interest. "Can you ride?" "Used to when I was a boy." "Going to do this?" "Can't back out now." "I say"—this to the cowboy—"are these horses safe?" With a grin he replied, "Well, mister, they won't buck." That was enough. The two men went to work at their horses, they felt every strap, they cinched till the horses squealed, they did everything but the one thing a cowboy would do, look in the mouth to see what bit he could depend on. The men were game. There was a roar when they called for big spurs. "Are you ready?" "Yes." Foot in stirrup together, left hand solid hold of rein and pommel. "Up." Swish! They are off, foot not over the saddle, right stirrup gyrating through the air, first corner taken so sharp that 45° was all that saved us. They took the first barbed wire

and struck for the plain. No. 2 yells, "Blank!"—"straight bits—nothing to do—sit your horse." Oh! yes, you have read accounts of rides, the *Fool's Errand*, *Under Two Flags* and the rest of them, but that hour's ride must be *lived* to be known. When we rode back, we could have started a saloon with the whisky and tobacco that were offered us. "We thought you uns *walk* in."

It was over in the San Juan country, Saturday night. The day shift had come down from the mine. Most of them had not been away in two months. Emotions? They hadn't had any. Pick and shovel and car and blast and sleep and smoke with good food well cooked and plenty of it. And now they painted the town red in very truth. It was not, and here I am emphatic, it was not a carouse of beastly dissipation. They did drink some beer and a modicum of whisky, but not one drunken man in the crowd all night long. Fun, fun was what they wanted. Emotions were ready to explode from the bodies of 500 splendid specimens of physical manhood. They took possession of the hotels and ran them, they ran the saloons, too. They wheeled each other, racing, on wheelbarrows all over the camp; two played Pyramus and Thisbe to a roaring audience; they piled boxes for their rostrum and set up and pulled down their orators. They told stories. I caught this one from a crowd around a longlegged yankee. "I was up in Rattail Gulch yesterday; they've struck it on the Logan; I says to a feller, 'You've got a good camp here.' 'Yes,' he says, 'and a good boneyard started with eight citizens. Not one on 'em died a nachrel death except Sam Becker, and his wife pizened him.'" Athletics become a passion almost in the West. In Silverton they change the Sunday school hour to 9 a. m. when there is to be a ball game in the afternoon. But I can answer for it that the ministers and their families do not attend.

The West thinks its own thought and lives its own life. It is not a question in what does a man conform, but what *is* he. The man of the West will not accept his politics or philosophy secondhand, and he hesitates at his art and religion. The everyday man is more of a philosopher in the West. Life, death and nature come to him as his everyday fare, not as the

accidents in a formal struggle for existence. He is not a success worshiper. He is up today and down tomorrow and so is his neighbor; they are boon companions in the struggle. It is the striving which counts, not the result of it. The common lie that the man is worth what he can produce is not built into a cast-iron system in the West. There has been too much hardship to be endured, too much suffering to be borne through a long period in the conquest of a new country to allow the measuring of a man by merely tangible results. Then, too, it requires solitude, real aloneness, to see beyond the immediate social relationships to universal citizenship; and this vision the West has more than any body of individuals through all the steps of evolution to the present. It looks at the reality of things, not the form. One reason for this may be seen in an occupation which holds so large a portion of the citizens, namely, mining. The miner does not rob another in what he takes out of the earth; it is not the result of competition which takes the bread from his neighbor. Secrecy and underhand, circuitous paths to gain are largely eliminated. This fact affects his whole mental make-up. His relation to his fellow is open and freehanded, "*ὥστε καὶ ἡδέως ἐπόνουν καὶ θαρραλέως ἐκτιῶντο καὶ ἃ ἐπέκατό τις ἦκιστα Κῦρον ἔκρυπτεν.*" This is in the character of the western miner. It shapes his attitude toward his neighbor and toward all public questions, though his ideas are more individualistic, his sympathies are catholic. It is also largely true in other interests, sheep and cattle raising, the production of corn, wheat and fruit. From these great industries the principle extends to all business, to all social relationships. Each man thinks his own thought and lives his own life. It is the first time in history when this could be productive of good; it is the first time when the everyday man has been found so far advanced mentally and morally that he is sure to advance more rapidly when left to do this or that act because it is *right*, not because it is the dictum of his environment. Physically, mentally, morally the West is the birthplace of manhood. The Persians taught their noblemen only to ride, to shoot, to tell the truth. These are the lessons of the miner, the cowboy and the rancher on the great plains and

in the Rocky mountains. If he does not care for *athletics*, he is not worth the consideration of men; the intelligence of this average man has not its equal in the world today; while the moral standard is that of strong, intelligent self-respecting manhood. These virile qualities of the West are so marked that men come to the West to find themselves. After the college training, after years in foreign universities, even after the struggle for existence has begun, they turn to the West for the opportunity to round out their powers symmetrically, an opportunity which can never be found in the more settled order of the East.

Following close on the effect on the individual comes the effect of the West on the nation. India, Holland, Switzerland clearly point out the influence of the physical characteristics of a land in molding its citizens and shaping its history. These gigantic plains and mountains of our country have a mission in civilization which prophecy and poetry alone can measure. The bigness of the West gets into the thought and reacts on public measures. Why! the man of the West goes as far as from New York to Chicago for his Sunday's fishing. He thinks nothing of just running down to New York on a little business and is back in time for church on Sunday morning. Occasionally his wife thinks it is a proper thing for him to go to church on Sunday morning. In the dark days of '61 and '64, when the fate of the nation hung in the balance, no one ever stopped to question where stood the West. In that day even Missouri asked to be considered in the West.

Woman suffrage is talked about and discussed and meetings called to order and adjourned; it is decided impracticable in our better organized East. In the West you never hear, "Why! we have never done this before." It does not require a train-load of red tape and the long-winded meetings of wiseacres. The West has proved woman suffrage a success while the East was preparing to think seriously about it. No state in the Union can boast the clean, decorous election day which is seen in Colorado from Julesburg to Durango. It has been our privilege to see a bad man, for many years a successful politician, quietly, without any campaigning, voted out of every office in a city.

But you say, "Look at the temperance question. Temperance is not the success that was promised." I need only reply that the women of Colorado do not agree with their eastern sisters on some temperance questions. And here, by way of parenthesis, let me say that there is no place on earth where woman is more safe and more respected than in the Rocky mountains. Woman in the West has come into a new lease of life. Cut loose from a thousand petty restrictions, living in the open air, she is becoming a splendid animal as well as an individual thinker. The position of the West toward woman is seen in the systems of education. In the East the woman's opportunity for higher education comes through the wealth of a few individuals who have endowed a few colleges. In the West free education is offered to all women by every man who owns a little home or carries a watch or rides a wheel.

The West has no ancestors. Her mission to civilization is immediate; it is to speak the word of civilized, cultured manhood to the world, untrammelled by tradition and custom. Do you say these men of the West are extremists? I grant you yes. Are they crazy populists? I will allow that some may be found. But I ask you to bear in mind that John Brown came east from the plains of Kansas, that the demand, yes and the demand with no uncertain sound in it, for the ownership of public utilities and for an anti-trust plank in the platform of each of the great political parties came from that portion of our country which lies west of the Alleghenies. It was the Granger laws of Wisconsin, followed by Minnesota and Iowa, that gave us the Interstate Commerce Commission. Special city charters are no longer given in the West. Cities are incorporated under a general law. The most advanced form of city organization, under which cities form their own charters through local self-government, is known only in the western states of America. This spirit of the West has expressed itself again and again on every great question which has been of vital import to our country from the very first; and today in the state of Iowa it is requiring that the tariff shall be removed from those articles which have made a market abroad, and on which a bonus is demanded from every citizen who buys in his native land.

Thus the West speaks to you today, in its strength, in its beauty, in its thought, in its joy, in its bigness, in its crudity, in its great-hearted, strong-handed love for men. Emerson's prophecy of America is true of the West today.

"There, in that great sloven continent . . . in the sea-wide, sky-skirted prairie, still sleeps and murmurs and hides the great mother . . . Here is the home of man—here is the promise of a more excellent social state than history has recorded."

Formal discussion

Pres. Andrew S. Draper—First, Mr Chancellor, let me say how very deeply this kindly greeting touches me and let me express the great pleasure I find in mingling with old friends once more and in having even a small part in the discussions of this time-honored University Convocation.

I must recall to you the fact that I have no right to interpret "What the West Says," for I do not live in the West. My work is now at the very center of the country. The bright star which by the census of 1900 marks the center of population on the map of the United States is within the state of Indiana, well up to the Illinois line; and I surmise that a census taken now would find that star over that line and moving directly towards, if not already beyond, the University of Illinois. Illinois statisticians have proved that the star which marks the center of our national agricultural productivity is hard by the University of Illinois; and it needs no help from statisticians to prove that the star which marks the very center of educational strenuousness finds a peaceful and charming resting place among the maple and elm and linden trees on the campus of that university.

Regent Depew's railroad announces with the usual energy and perhaps more than the accustomed accuracy that Albany is a gateway. It certainly is a very nice gateway. But it is a gateway in the fence which surrounds the front dooryard of the nation; and there are numbers of delightful educational people in provincial New England who ought to allow that railroad to carry them—which it will be willing to do for a statutory consideration, out to the notches in the Alleghenies, that they may look out on their country.

I have had no previous knowledge of Mr Callahan's rendering of "What the West Says," had anticipated that he would treat the educational work beyond the Mississippi, and had counted on his giving me sufficient grounds for some impromptu comments on what the western people are doing through their schools. He has given us a very fascinating description of quite another thing; and no one knows better than he that it is only a very one-sided description of an outdoor, frontier life which is fast vanishing away. On the plains and among the mountains of Kansas and Nebraska and Colorado and the Dakotas and the other trans-Mississippi and northwestern states there is already the full flower of a marvelous civilization. You eastern men and women know little of it. I am sure that the state (Colorado) which has given us this pleasing picture of life beyond the towns and the cultivated farms, spends more money for schools according to population and has less crime per capita than this splendid, imperial State in whose magnificent capitol we are assembled. You who traverse those great western states only at rare intervals and then at great speed can not fail to see that the house of the high school is the most conspicuous structure in every town, but you can not understand the feelings that are behind that building, nor the hopes and enthusiasms and heroisms which center in the work there carried on.

I was much interested in the address on educational unity by the distinguished president of a leading western state university (President MacLean of the University of Iowa) this morning and the discussion which resulted therefrom. It led me to reflect on the differences in popular feeling toward the schools, and in the work of the schools, east and west, which appear to one who has sustained relations to educational work in both sections. I will try to speak of some of them.

With all moderation it may be said that in a western state there is a far more universal, a warmer feeling toward the schools than in an eastern state. To put it more clearly perhaps, it may be said that all classes of people cherish all classes of school and all grades of school work more heartily in the West than in the East.

Practically every household in the West gives ungrudging and interested support and sends its children to the public elementary schools. There is no question in the East about the moneyed support of the public elementary schools, for custom has established it and the law requires it; but who shall say that with the great body of the well to do that support is not perfunctory, or at the best is not given for prudential considerations and because the law decrees it? Our fathers used to characterize the schools as "the common schools." It was a fitting and suggestive term. They were common to all the people. Who shall say that they are so now in any considerable eastern town? For reasons which are logical and easily explained, they are so to a much greater degree in the West than in the East. In this fact there is significance both for the East and West. And, it may be added, the West does not intend to yield this point. It proposes to keep the elementary schools common to all, and it knows very well that they must be good enough for the best, if they are to be good enough for all.

But a great deal more than this is to be said or the heart of the matter is not reached. There is no public high school question anywhere in the West. Every citizen believes in the high school as much as in the elementary school. There is no talk that the children of the poor ought to be put to work instead of given the benefits of a secondary school if they will go and take them. Every town taxes itself cheerfully, sometimes more heavily than it can afford, to build a splendid high school building of which it may be proud, and to provide its children with as good a secondary education as they could hope to find anywhere in the country. And the elementary schools and the secondary schools are parts of one common system to an extent not realized in the East.

But even this is not all. Every boy and girl in a western high school thinks about going to college. And there is a free college only a few hours away. In a dozen western state universities there are 30,000 students matriculated in college courses. The entrance requirements and graduation requirements are as high as in any university in the country and the work broader and more diversified than in any of the older institutions in the East.

Common sentiment supports these institutions. Without a dissenting vote the last Legislature in Illinois gave more money to the state university than the state of Massachusetts has given to advanced education in a hundred years.

All this binds all kinds of people together in the upbuilding of all grades of schools. It articulates all the schools more closely than is the case among any other people of whom I know. As already remarked, the elementary and secondary schools are parts of one system. The universities are a part of that system also. The universities examine the high schools rather than their pupils in order to determine whether their graduates shall be admitted to the universities. They admit on diplomas of the approved high school. The universities keep a visitor or inspector journeying among the high schools, advising with the boards of education and the principals about their upbuilding. If they meet the requirements, the university puts them on its "accredited list" and admits their graduates without examination. Of course there is great ambition to be on the accredited list. Of course a student gets into the university now and again who can not do the work. But for every such case there are a dozen others who go to college and succeed roundly who would not have gone at all if the way had not been an open one. And the system binds the universities and high schools and the elementary schools all together and brings the support of all the people to the support of all of them, in a way most helpful to all.

There is a lot of eastern foolishness, if not eastern unfairness, about western universities. If it is easier to enter a western university than one in the East, the work is broader and more diversified in the West than in the East. It is common talk among western students who attend eastern universities that one who gets in always gets through. It is not so in the West. The work exacts thorough preparation and the closest application. The students, at least 90% of them, are earnest and exacting; they want full value for the time and money they are investing; they are of a class bound to be very influential in the state; and, while some come short of their degrees, the crowd go from our doors very enthusiastic apostles, very capable

representatives of the higher learning. They are better able to do things which must be done. And, mark you, the time is close at hand when, not only fewer western students will come east for an education that is mainly culturing, but when many eastern students will go west for training in the application of science and thought to the great industries on which the nation must prosper and wax strong and in which the people must find their main happiness and any culture worth the having.

This calls to my mind and leads me to barely touch on another very distinguishing feature of the western schools. It is this, that the people expect their advance schools to do things for them. You wonder why the western states give such munificent sums to support state universities and why those universities grow so rapidly. It is because the people are self-confident and aggressive and are bound to be free and are skeptical about the philosophy of institutions resting on individual fortunes and in the control of men who have little real understanding of the gospel of work. It is because the people expect their universities to energize their intellectual life and help their industries. The western people not only expect the universities to help all the schools below them, but western cities expect the universities to tell them how to lay out streets and build sewage systems that will work, the western railroads expect the universities to show them how to get the greatest speed at the least cost, and the western manufacturers look to the universities for new designs in their machinery and new applications of their motive power.

This is a great state. Far be it from me to say anything which, even by implication, may reflect on New York. Indeed, my mind goes to these things because I revere her institutions, esteem her people and love every rod of her soil.

Let me suggest a concrete case which will exemplify what I am thinking about. You have thousands, hundreds of thousands, of acres in this State which are not earning enough to provide, decently, the necessities of physical and intellectual life for the few people who remain on them. The young people with the true stuff in them who were born on these acres have gone to the cities to give the most substance and energy to the

stronger life which is there, and the rest are either content to go on with a miserable existence or have been overcome by conditions which are overwhelming. So nothing is being done worth mentioning to make these acres earn their salt. If they were in the watershed of the Mississippi, the owners of these lands, the agricultural organizations of the state, indeed all the people of the state, would be knocking with impatience at the doors of the universities and demanding to know what scientific investigation and a knowledge of world agriculture could do with them to make them give living returns to men and women and strength to the state. And the universities would respond to those demands and gain new support by doing it.

I know my brief time is up. After all, there is a unity, all the solidarity required, in our American system of popular education. East and West, North and South, in public school and private school, we are trying to train boys and girls for useful and productive lives, for a secure and reliable citizenship. We are doing it in one way in one section and in another way in another section; and in our voluntary educational gatherings, we exchange the ideas and equalize the advantages which local conditions bring to us. While I have suggested some things which distinguish the western schools as those things have occurred to me at the moment, you must not suppose that I do not know of some things which distinguish the eastern schools or that I would not have pleasure in testifying of them if there were occasion.

General discussion

Prin. F. C. White—Edward Clarence Stedman says that the New Englanders are a wonderful race when they are transplanted. It has been your pleasure and mine this afternoon to listen to some sturdy westerners who are only New Yorkers transplanted; and I am sure you feel as I do that we are a wonderful people after we have taken Horace Greeley's advice. It is not for me to say, in speaking on this topic, "What the West Says," that the West is in the habit of saying things while the East contents itself with what Dr Eliot has happily called the joy of achievement; for in matters educational as well as in matters political and industrial the West has been

doing great things; we can follow her example profitably in many of them.

When Peter the Great fell heir to the Romanoff kingdom, a great ambition possessed him. He wanted to make of that little, despised and unnoticed Slavic state a great empire that would have to be reckoned with among the nations of the earth, and he perceived with unerring judgment that in order to do this he must give Russia the command, about face. He must cause her to look toward Europe instead of Asia; and her greatness as a nation began when Peter the Great established her capital in conquered territory on the Baltic, so that she looked out toward the west.

In the educational world the great west of our country is full of inspiration and, as we have been told this afternoon, full of hope. It is pregnant with great possibilities. The West has taught us that we must, if we are to have good schools, make adequate expenditure. The West has told us that we can not pay for mediocre schools and have good ones. A vast empire of western territory has been sacrificed to the school fund, and, as you have been told just now, many western communities cheerfully bear a tax rate that would cause curses deep if not loud in many of our conservative eastern communities. The Orient, China, Japan, the islands of the sea are looking toward Colorado. New York and New England are watching Illinois. We shall all be the better for it. New York will be the gainer, China will be the gainer, Illinois and Colorado will not be impoverished. The West is in the habit of doing things on a colossal scale, a scale that almost staggers us. A fresh young eastern drummer is said to have visited Helena and to have succeeded in getting a three weeks' ticket of admission to the Silver Bow Club. He approached a table where three men were engaged in a game of poker and asked if he might join in the game. The players were Marcus Daly, George Hearst and Haggin, the millionaire horse-owner. The stakes were commensurate with the players' wealth. On being told that he might join in the game, the drummer took a roll of bills and with a great flourish threw on the table a hundred dollar note, saying, "Give me chips for *this*." When he returned from hang-

ing up his hat, he found his money still on the table and said, "What is the matter? Is not my money good?" "Why, yes," said Haggin, "Hearst, give the gentleman a white chip." More than once we have looked out to the West after making what has seemed to us a phenomenal sacrifice for our schools only to find our offering contemptible in comparison.

The voice of the West, so far as I am able to determine, is perfectly sound on the matter of examinations. It has been reserved for a certain school of pedagogics in the East to work people up to a fever over the great evils that come from a boy's feeling that, because he has passed an examination, he knows all about a subject. Within two months I have heard the able editor of an eastern pedagogic journal of great influence warn his audience of teachers against this terrible evil bred and nourished by the Regents system. It was an able and scholarly address; it was voiced in language eloquent and virile. It is a masterly protest against a great evil—that has never existed. I believe there is now and then a high school boy, as there is now and then a college graduate, who thinks, when he leaves a subject to pursue another, that he has acquired the sum total of human knowledge in that subject; but he misunderstands the spirit of our teachers who thinks that these cases are numerous. Of course one might study geography all one's life and not exhaust the subject; but I am perfectly satisfied that my pupils, after acquiring a reasonable proficiency and passing a fair examination, shall count that a milestone in their progress and pass on to some other realm of knowledge. I am not concerned at all if I hear them say, "I have passed geography and want to take up something else." I will take care that they have no excuse for thinking that they know it all, and so will my teachers, and so will yours.

I am sure we have all drawn inspiration from what we have heard from these transplanted New Yorkers, these sturdy westerners, that we have gained something of that spirit of hopefulness which they have told us possesses the West. We have become convinced that they have passed through the immature age of education, the brick and mortar age, and have gotten beyond it. Let us learn what we can of the West. Let

us like the Indian have our ear occasionally to the ground. We must hear what others say, know what others are doing, and perhaps we may occasionally venture to give a word of warning to President Harper and Headmaster Callahan and others in the West. In the educational world we are to have no sectionalism. I think any one who heard the opening paper this morning is convinced of that. We are to have no North or East or South, but one glorious country mighty in the strength of an educated citizenship.

THE SCHOOL AS A SOCIAL CENTER

BY OSSIAN H. LANG, EDITOR OF *Educational Foundations and the School Journal*

The conditions revealed by the frequent recurrence of labor strikes have gradually impressed on the public conscience the exceeding importance of industrial peace and social cooperation. They have also emphasized the urgent need of suitable provision for the leisure hours of the laboring people. It has been discovered, further, that the hold of the principles of self-government on the adult population is neither as universal nor as firm as the welfare of our republic would seem to demand. Here we stand before the most serious social problems. I believe and have contended for some years that the root of the difficulties is to be found in the lack of an intelligently organized system of opportunities for the recreation, the social intercourse and the self-improvement of the adult population in rural as well as urban districts.

Society must learn to take practical cognizance of the gradual increase of the laborer's leisure time. With fewer hours of labor the toiling masses have more time to themselves. Here is where the enemies of social order get in their work. The safety of society is poorly guarded where no effectual plan exists for checking, modifying or offsetting the obnoxious influences developed under the changed aspect of economic life.

As usual, when the discovery is made that something is awry in civilization, wise people are looking to the schools to set things right. There is a growing faith in the power of the school, more particularly the common school, to shape the future

of the nation. It behooves the schools to prove themselves worthy of this faith. They can not afford to shirk the multiplication of responsibilities. They must rather turn into themselves and see wherein they may aid the solution of the difficulties now engaging the attention of sociologists.

The common school has proved itself the most efficient agency for Americanizing the children of foreigners. So, I firmly believe, it will reveal, when once given the chance, its still greater, though as yet untried power of bringing the alien population, both immigrant and native aliens, under the sway of our national institutions and ideals. Remember Americanism is a principle, not a birthmark. The enemies of social order are recruited not only from the armies of the people coming to us from countries in which a lower civilization prevails, but also from the ranks of those who, though born under the stars and stripes, never felt in their souls a dawning of the thought that lies at the foundation of our national institution. There is one other class who must be specially looked after, and that is composed of people for whom the schools have failed to provide resources to occupy the mind after the day's work is done.

Civic society has at last awakened to the need of self-protection against the enemies of law and order. It is for this reason chiefly that it is endowing and maintaining various agencies for the special purpose of supplying opportunities for the entertainment and social intercourse of the people. Free concerts, recreation piers, popular lectures, evening schools, free reading rooms, the extension of the park system to the crowded population centers, the opening of free playgrounds—all these speak volumes for the development of an intelligent, healthy social conscience. Every aid is extended to facilitate intellectual self-improvement and to supply good entertainments for the masses. What interests us most directly is that all these things are gradually being gathered together where logically and rightfully they ought to center—under the responsibility of the common school. Not that the school is to furnish all the means of intellectual improvement and social association, nor that alone it is to direct the chief phases of social cooperation, but it is to be, rather, the central clearing

house for the various endeavors put under way for the enlistment of every individual for the advancement of the common welfare.

Slowly, but surely and consistently, the social mission of the school is being extended to include the care for the leisure time of the adult population. This is wise economy; for there are inherent in this institution possibilities which can and ought to be exploited for the strengthening of our democracy and the inauguration of an era of peaceful cooperation. While these opportunities for social well-doing remain neglected or but partially developed, the saloon, the walking delegate, the yellow journal and the demagogues of political platforms and desecrated pulpits will continue to wield their danger-fraught influence and encourage the spread of class hatred and stir the disgruntled and ignorant to strikes and social disorder. Proper development of the fundamental ideas of the common school will result in plans of social endeavor and organization that will effectually check the reign of demagogism, that giant evil which has corrupted the principles of government, has bred a tribe of professional politicians, walking delegates and other parasites, has practically disfranchised a large proportion of citizens and has deprived them of all feeling of responsibility and "being-in-it-ness" in governmental affairs.

But what *shall* the school do to meet the new responsibilities? Let us ask rather what *can* it do. Or, better still, let us look about to note what is already being done in this direction under the auspices of the common schools and by the utilization of the school plant for general social purposes.

The development of the social scope of the school in recent years is nothing short of marvelous. Night schools are with us, free lecture courses, reading rooms, play centers, vacation schools, concerts, parents' meetings. Those who labored for these things were not at all encouraged in their hopes and efforts by the attitude of school men. But they came, nevertheless, and they are only promising beginnings of greater things yet to come. Every extension and every improvement of the school plant increases the range of possibilities. The school playgrounds will be fitted for games, gymnastics, general outdoor recreation, and open to young and old after school hours.

The most elementary thoughtfulness will suggest that on cold and rainy days the people be permitted to use the indoor gymnasium. Best rooms, the establishment of neighborhood libraries, reading rooms and simple indoor entertainments will follow as a matter of course. The free use of the school baths is already assured in New York and Boston and wherever enlightened public sentiment has established these desirable institutions. The same may now be said of the plan of making the district schools serve as distributing stations of central libraries and museums. Before long the proper authorities may be persuaded to permit many of the works of art now stored in art galleries to be sent out on trips to the various common school centers, preferably the high schools, and these art exhibits, thus brought near to the homes of the people, will prove the most effective stimulus to the universal cultivation of esthetic taste yet devised. Literary and musical clubs, village improvement societies and patriotic associations will be invited to make the schoolhouse their home. There will be circles for dressmaking, millinery, cooking and all the other household and motherhood arts; free associations for local history and geography, good citizenship, theatricals, photography, horticulture etc. Practically the entire population will be drawn in and enrolled in classes, lecture courses and societies for purposes of intellectual, moral, physical and economic improvement. The vans that are now used to convey pupils to and from school suggest available means for the transportation of adults to the common social center, which has so long been confined to the narrow boundaries of a school for children. Social service will be the ambition characterizing the new evolution—social service in its broadest and most comprehensive scope—social service identified with the highest type of human aspiration, social service representing the truest human interpretation of the divine idea underlying destiny, social service expressing best the earnestness of man's endeavor to do the will of the All Father which is in Heaven.

To me this whole question is a religious one. I hold the specific purpose of the common school to be the *social* regeneration of the individual in the service of civilization, patriotism in the sense of good citizenship, neighborliness and righteous-

ness. It seeks to serve this purpose *now* in its limited sphere of child training by endeavoring to make every pupil self-supporting and self-reliant and by seeking to instil in the young intelligent and unswerving respect for law and order together with rational views of personal liberty. Wherever these objects are consciously, honestly and wisely cultivated, we have a training school for and in social service. There a sound foundation is laid for the religious life, or, if another phrase is more acceptable, there the religious development of pupils is being reinforced, as it should be, in every school.

It has already been suggested that the school is capable of becoming a great social, regenerating force, including in its scope the adult population as well as the training of the young. The very nature of its origin involves cooperation of parents as a vital element which we as teachers ought to promote by every means within our resources. A school district is or ought to be an organization of the people of a locality, united for the purpose of maintaining a common school as the chief common agency for meeting the educational responsibilities placed on the several families, but whose conscientious fulfilment is of vital interest to society at large, and whose sufficient and efficient discharge is of fundamental importance to the whole state. Now this cooperative social group bound together for the maintenance of a common school I have for some years designated as "common school community," and I am glad to see the gradual adoption of the phrase in general use. Once the full weight of that term is rightly interpreted, it will be practically translated into new forms of social organization and cooperation wherever Anglo-Saxon principles of democracy prevail, and there will be reestablished the township of old as the most efficient civic unit, only its character will be nobler than ever before, united as it is and vivified by eternal, by educational ties for educational ends.

Live parents meetings tend to develop the social possibilities of the school probably more effectively than other agencies, but they are by no means the only available beginnings for the building up of the future school communities. Even where parents are not yet aware of the fact that the school belongs to them, and that it is their rightful privilege and duty to make

the most of its cultural and social potentialities, or where an un-American officialism has shut out parental cooperation, the way is being paved by the gathering of the young from various homes for purposes of being together, of working together and of playing together. The bonds of union formed at school ought to be kept intact by organizations of various kinds, specially of alumni associations. Provision ought to be made that not one boy or girl shall be lost from view through any fault of the school. The school will be open to the former pupils, and a secretary will try to keep track of them. They are worth following up. They are the most hopeful members of the developing school community. If they are sick, their school comrades will know of it. If they are seriously in need of help, they will be specially commended to the proper charitable organization. The individual need not be lost in the mass, unless he wilfully severs his old associations. Here are opportunities for well-doing which no school ought to neglect.

The idea suggested in the subject of my paper and more clearly indicated in the phrase, school community, involves nothing less than a complete reorganization of civic society on the principles already laid down in the development of the common school and summarized in that classic phrase of Horace Mann, "the universal education of the people in common schools free to all." In the light of this thought, no radical departure is contemplated, but only a forward step marked out on lines of evolution. The state will practically be a federation of school communities, each the rightful warden of its social welfare and each thoroughly conscious of universal, social interdependence and the supreme importance of social cooperation in the working out of the destiny of mankind.

Our most immediate duty then, is to open the school for purposes of recreation and social intercourse, as it is already helping on the intellectual and economic improvement of adults, thus making them veritable clubhouses of the people. Above all else, keep hold of the boys and girls now in the schools. Let the educational interests remain preeminent, if you will, but do not let too narrow a conception of education assume the dictatorship.

The church's privilege of supplying recreation and amusement for its members in addition to the pursuit of its essential, spiritual mission, is in no wise interfered with. The school is open to everybody. That is its glory. Being free of social and religious bias, it has natural advantages over other institutions in the matter of social endeavor. Therein lies its greater responsibility for extending fit opportunities for filling unoccupied hours with the right sort of activity, association and recreation. Once the school community has entered its rightful heritage of responsibility for the intelligent and self-directive cooperation of its members in the carrying on of civilization, there will be no longer such clouds of embitterment, misinterpretation of motives and hatred as have darkened our national life in recent months.

Formal discussion

Prin. Myron T. Scudder—Just six weeks ago today I visited a rural school in northern Georgia, which, showing as it did what a school can do for a community, was a revelation to me. It had an assembly room with an immense platform and a good piano. Leading out from this assembly room were four rooms used for recitations and laboratory purposes, but easily converted into quarters convenient for social and literary functions. One of these was inexpensively fitted up for giving lessons in the art of housekeeping, such as cooking, preserving, canning, bread and biscuit making, all under the care of a young lady who had received her training at Pratt Institute. Adults as well as children were welcome. Another room was devoted to the manual arts, carpentry, weaving, basketry, hat making and trimming, etc. Here again the influence of the Pratt Institute was apparent. On the school grounds, 11 acres in extent, were many kinds of forest and shade trees, a good playground and an exceptionally fine vegetable garden. There were also flower beds and lawns and walks well laid out.

To this school children were brought in comfortable conveyances from the surrounding country for their daily work, and to it the adults repaired freely to see the children at work and to enjoy the social life that had been made possible. This school is a true social center.

Now, if we ask how this was brought about, we learn that it is due first to the enthusiasm of the teachers, particularly the young lady principal, who had given up a larger salary in a city to come to this place, 8 miles from any railroad, in order that she might do this very kind of work; and second to the financial and moral backing of the Federation of Women's Clubs, that has deeply interested itself in the establishing of this kind of school throughout the rural districts of Georgia.

In developing schools into social centers, teachers with the right spirit and adequate training are a prime necessity; but in addition are also needed the hearty cooperation and financial support of private philanthropy. Neither the state nor local communities can at present be expected to urge or even materially to assist from tax-raised revenues, those who believe that the schools should thus widen their sphere of service. This social function of the school is as truly born of the missionary spirit as is the sending of the Gospel to the heathen.

We have heard much of institutional churches. Note in particular the Jersey City church that gave itself heart and soul to its People's Palace. Here were week day and Sunday classes; here were a well equipped gymnasium and swimming tank, bowling alleys and pool tables; here was a hall with a fine stage for theatricals, also hundreds of games for the young, and an athletic field; here too was a day nursery, where mothers on their way to a day's work could leave their babies under even better care than they could have provided at home. This church is an ideal social center.

Then, too, there is the Young Men's Christian Association, which believes in ministering to the physical, mental and social needs of young men, even as to the spiritual. Take as a single illustration its expansion along educational lines. Elaborate and carefully prepared courses in a multitude of subjects are available to young men in scores of cities and villages, where, under competent instructors and taking as thorough and as scientifically prepared examinations as are to be found anywhere, young men may pursue studies and earn credentials that are accepted toward degrees in more than 100 of the colleges and universities of this country.

Why should not our schools also expand? Instead of keeping open for five or six hours a day, why should they not keep open all day and till, say 9.30 at night; and, instead of being open to children only, why not let the adults come too, to enrich their lives in every way possible and to make themselves more efficient in the kitchen, in the shop or factory, behind the counter, in the field and forest?

The beginnings of this wider sphere of public education will have to be small. Mr Lang has already outlined its possibilities. In addition to what has already been proposed, I would suggest that the school can widen its sphere of influence not only by providing attractions under its own roof, but by going out to the people. Thus, for instance, the older and more seriously disposed girls of a high school might organize here and there in a city or village little home library circles, where 10 children gather once a week in a central home for work and amusement under the guidance of an adult, each center being provided with books and games and working materials for sewing, weaving, basket-making, and perhaps for carpentry or bent iron work. This, properly conducted, would do the children and even the parents good, and it would also do the high school workers good.

The high school faculty also could go out to the people by offering noon hour courses at shops and factories, where workmen, after eating their lunches, could for half an hour follow some favorite study in science, literature, history, mathematics or mechanics, without taking off their overalls and without laying aside their pipes. I might add that these things are entirely feasible and have actually been done.

So little has been done along the lines suggested, however, that everything that has been done, or that will be done during the coming few years, will necessarily be pioneer or experimental work. As a feeler, and looking to the organizing of social centers in rural districts, we have drafted the following letter which will be sent to school commissioners or men and women of influence in our vicinity:

State Normal School, New Paltz N. Y.

Dear :

The faculty and students of the New Paltz Normal School are deeply interested in the welfare of the schools of our county and would be glad if some form of mutual cooperation could be established that would result in the

betterment of every school district, promote amongst the people a deeper interest in education, and enrich the intellectual and social life of each community. If our schools are to be instrumental in producing communities that are, "governed by justice, dignified by intelligence and adorned by refinement," they must widen their spheres of activity and consider the interests of adults as well as of children. Many think that schools ought to be so equipped and managed that both old and young can find profit by attendance upon courses adapted to their needs and offered at convenient hours. Indeed the conviction is forcing itself everywhere that the school building and grounds should be placed at the disposal of the entire community, to be utilized as a social center to the fullest extent possible, the doors opened in the interests of everything that will tend to improve the people.

Now, acting upon this idea, we shall be glad to cooperate with any school or community within convenient reach, in maintaining work along any of the following lines:

Debating clubs

Reading circles

Sociables and musicales

Stereopticon lectures

Classes for the study of history, literature, science, political economy, or any other subject that may be desired by a group of 10 or more people.

Classes in sewing, basketry, weaving, bent iron work, millinery, cooking including plain cooking, camp cookery, and preparation of food for invalids.

Round table discussions on agricultural topics: soils, irrigation, insects injurious to plants, rotation of crops, silos, care of cattle, poultry raising, hygienic conditions in the house, sewage disposal, etc.

Lessons on first aid to the injured, care of the sick, prevention of disease

If you think well of our proposition and will bring it to the attention of some of the teachers, school officers or other influential people of your community or of some neighboring communities, possibly something will come of it. The services of our faculty and students will be free, the only expense being that for transportation, entertainment and the actual cost of materials.

We shall be glad to talk this matter over with you in fuller detail if you are interested.

Very truly yours

STATE NORMAL SCHOOL

It remains to be seen what will come of this. We do not expect a great rush of engagements! The idea of making each school a social center for its neighborhood has never been so much as heard of or thought of even by the majority of teachers, to say nothing of the people. It will be long before the people awake to its significance and importance. But, when once it is incorporated in our educational creed and carefully worked out in practice, we certainly shall see an ever increasing number of schools opening their doors from 8 a. m. to 10 p. m., so that

under shifts of supervisors, instructors and janitors the community may find within easy reach that which will elevate, instruct, train, inspire and amuse people in every walk of life, thus making for that general contentment which Socrates declared was, after all, the only true wealth.

Tuesday evening, June 30

Chancellor Doane — It is a very great pleasure to me to present tonight to the University Convocation the president of Williams College. Occupying a position of dignity and importance in the educational system of the state of Massachusetts, this neighbor of ours represents in the first place personality and in the next place a name which instantly commands the attention and the admiration of any one who is in the least degree interested in the great problems of education in the United States of America. The subject of his address this evening is "Education and the Social Trend."

EDUCATION AND THE SOCIAL TREND

BY PRES. HENRY HOPKINS, WILLIAMS COLLEGE

One of the very first acts of the versatile and forceful young emperor, William 2, after assuming power, was to call together at Berlin a grand commission of professional teachers, members of parliament, high officials, great manufacturers and dignitaries of the church to consider the problem of the German education. At their first meeting he appeared before them in the uniform of a hussar and, with his hand on the hilt of his saber, explained to them his program. He complained that education was classical and medieval rather than national and was fitted to produce not young Germans but young Greeks and Romans. He declared that in the lower schools the pupils were not taught the history and wars of their own country, and he proposed to have taught the useful rather than the curious and the interesting. Above all, he believed that politics should be taught in the colleges.

We all, I suspect, largely sympathize with William 2, who thus in substance demands that the German education shall produce serviceable citizens for the German empire.

If an embodied representative of our national sovereignty could appear before us, he would not come in the uniform of

a hussar, nor would he front us with his hand on the hilt of his sword. He would probably have his hands in his pockets, but I am greatly mistaken if he would not ask of us the same thing that the young emperor demanded, that is, that we send forth from our schools and institutions of learning, good citizens for this great American commonwealth, men and women intelligent enough, broad enough, strong enough, and with sufficient self-forgetfulness to do their whole duty to the state — men and women fitted to inspire and lead and control their fellows for right living. Possibly also he might be sufficiently enlightened to broaden the demand so as to put it on the basis of a citizenship of the world.

The education that can produce such men and women, all agree, can not be of that mechanical sort that turns out its product of a given pattern by the gross, but of the kind which preserves to each pupil the integrity of his own individuality, and so the assurance of his own freedom.

The social trend of our time is, I apprehend, unfavorable to the preservation and development of individuality. By the social trend I mean specially the tendency of modern society to solidarity and sameness.

Our civilization is, to a large extent, a leveling process. It may level up, but it is constantly reducing the distinctive characteristics of individuals and of peoples, and is unfavorable in many of its influences to strong personality or to marked types. Causes physical, industrial and political powerfully incline to this result. Machinery versus handwork means the indefinite multiplication of uniform patterns. The quick and easy transportation of peoples and products carries the cheap traveler and the cheap machine-made article around the world. The flood of commerce is sweeping out of existence native art and handicraft. Whatever is characteristic of different peoples and climes is disappearing before the face of the steamship and the locomotive, and is being submerged in the vain competition with brummagem and American patents; pistols, corsets, churns, chromos, dynamos and ready-made clothing. The picturesqueness of the peoples of Europe is largely gone; the costumes of the Swiss cantons and the Scandinavian valleys linger as curiosities.

Do not the Japanese ladies affect Parisian styles? The Arab sheik will next appear in dress suit with patent leather pumps; the Turk will doff his turban for a stovepipe hat; and the cowboy lay aside his buckskin and sombrero for the commonplace glories of starched linen and the derby. The luminous and graceful chirography of the Rufus Choates and Horace Greeleys among men will vanish as did the hieroglyphics of the Egyptian priests. It is not enough that penmanship should be taught in Spencerian monotony, but of what use is handwriting at all with the universal typewriter at your elbow? Phonetic spelling still threatens to take all history and poetry out of English words; and Volapuk, or its later successor, characterless as a canal, puts in its claim as a universal language. The classical, the Byzantine, the Gothic, early and late, were distinct types of national architecture, forceful, consistent, admirable, the reflection in lofty art of the thought and character of aspiring and noble races. There is no longer a national architecture anywhere, but, in the main, meaningless jumble and confusing chaos everywhere; and, though there are at present promising signs of the growth of a worthy American style, it will be created, if it come, by the sheer force of individual genius against the leveling and disintegrating tendency of our cosmopolitan civilization.

Is an American epic a possibility? Is there any clear-cut and noble sense of American literature extant? We have despaired of fixing even on the national flower. I do not forget that we have a national banner. The American flag is itself, and still means something so definite and so glorious that millions of freemen love it as they love the light of heaven; and many of us here would go out tonight to die to save it from going down in dishonor. The newspaper with patent inside, stereotyped partizanship, and paid opinion is largely the manufacturer of information and conscience for the multitude; while, on a higher level, the able, independent press does our thinking for us by wholesale, and formulates our social and political belief almost in spite of us. You know that labor-saving machinery leads to minute subdivision of labor and crushes out individuality in the workman; you know how the same cause with railroad communication and the vast combinations of

capital have created the modern industrial city, and how population in increasing ratio is flocking to it; that a vast industrial revolution which we are only beginning to apprehend is in process, which masses humanity and which compels for mutual advantage and for self-defense combinations, unions and federations in which the individual workman merges his personality and largely surrenders his liberty. You know how in crowded factories and thronged streets and all the close contacts of modern life the individual disappears in the mass. You know how, in the evolution of society, there seem to be of necessity centralization and the formation of great monopolies and trusts in manufacturing, merchandizing and transportation, and that, as a matter of fact, business is rapidly passing from a system of competition to a system of combination. The small business that developed talent and leadership is swallowed up by the big business that dictates from a central authority and makes the individual man, be he owner or workman, powerless.

This change, already becoming a revolution, in the industrial and in the business world, from the system of competition to the system of combination, seems to be the product of great natural causes that are irresistible. Let us hope that it is in the line of the upward evolution of society, and that it may be rightly considered as a part of a still broader movement in which all the social forces are becoming cooperative. These confederations and combinations in the hands of ignorance and greed are hateful to us. But, if there shall result some great common agency for common good, they may be still fraught with blessing. We want no communal life, we want no control by all of each; but we do want human brotherhood, the reign of the Law of Love, the era of the Golden Rule. Certainly we may not avoid the logic of our democratic principles which leads on to the control by all of the affairs of all in industry as well as in politics. Surely great changes impend. As at the dawn of the world's new era of science there was the sense of unfolding morning, the sensation of being just on the borders of great disclosures, so it is now. What prophet shall interpret for us the signs of this new day? This much is certain: this whole drift of organized society toward solidarity makes the demand for a better quality of manhood absolute, and the

demand for leadership unspeakably more pressing. Moreover, whatever else may be true concerning this rapid and universal drift toward centralization, it certainly all tends to the minimizing of the individual person and to the breeding of a hopeless and helpless multitude.

There is that in the very form of our government which helps on the general trend. One voter among millions! Of what account is he? Professor Bryce, as a result of his observations among us, has written: "The consciousness of individual force and responsibility is dwarfed by the overwhelming power of the multitude and the fatalistic submission it engenders." The popular opinion and the popular will rather than truth and justice determine the political affiliations of aspiring young men. To conciliate all interests and offend none, is under popular government the politician's temptation. The study of the doctrine of averages and the deft use of expediciencies are not rearing statesmen with fire in their hearts and fiber in their brains. Our political system, as now administered, is not favorable to the production of great leaders of men.

It is impossible to deny that certain influences in our public educational system are unfavorable to the fostering of free and independent personality. From one point of view the common school vastly aids individuality, as all education must, by taking the pupil out of the narrow limitations of illiteracy. The simple teaching of the three r's must open up a knowledge of the possibilities of life and so call out the powers. But, on the other hand, there is a positive disadvantage and a real hindrance to individual development in the large size of many of the schools, specially of the great graded ward schools and the crowded high schools. It is necessary to deal with the children *en masse*. To be controlled they must be handled in platoons, kept moving in battalions. They are sized, graded and numbered, and always parts of a big organism. The total result is an immense benefit in raising the standard of the average intelligence and in counteracting the caste spirit, but often also injustice and harm in the inevitable repression of spontaneity, of impulse, of originality, and of the power of individual initiative, the most valuable characteristic of the best men and women. A well known high school principal has put on record that he can accomplish most

with the boys who have been least at school. He quotes Professor Geddes as saying that he had never known an original person whose education had not been in some way irregular; and further remarks that the biographies of the men and women who have delighted their day and generation in every department of human performance have been those who have been largely let alone and who have come into their own through the work of the inner impulses.

It would seem to be a psychologic fact that great numbers of people by their very presence act as an undue control over the individual. To be long in a crowd is a suggestion to the average person of his helplessness. Professor Sidis says "Large, massive, social organisms produce, as a rule, very small persons." He puts this still more tersely when he says, "Intensity of personality is in inverse proportion to the number of aggregated men." The application is obvious.

These forces act as by hydraulic pressure to reduce society to a dead level, to put the irresistible stamp of an unyielding die on every person and on every thing. Shall it come to this? Shall we turn out citizens at last all alike, as we do the dollar of the fathers, with the American eagle on one side and on the other the goddess of liberty, with no variation but an annual change of date?

We must see to it somehow or other that we are not crushed and flattened into meaningless, monotonous uniformity by the mighty ceaseless pressure of the influences of which I have spoken. We must resist the force of that environment which tends to make us all alike, as a flock of sheep are alike, poor things, in form, in bleat, in motion. We must not submit to be dealt with *en masse*, educationally, socially, industrially, to be crated, numbered, ticketed. That is the way to deal with things; possibly it may be a good way to deal with convicts, though I doubt it; certainly not with free men. We should, I believe, even avoid the talk about the masses. We must train youth each to respect his own sacred personality and to see that others respect it. You are you and I am I can go along with warm feelings and open manners.

Is sameness of type, is monotonous uniformity of individual and social existence to be the last result of time? Shall it be-

come increasingly hard with passing years to stand up under God's heaven as a child of God, believe in yourself, assert yourself, and make sure that you have an appointed task that is of vital worth in the universal plan? Not so, unless we degenerate; for, in God's plan, life ascending always tends to differentiate and grows not only complex but individualized as it gets higher, and getting higher becomes ever more free. The great man is unique. Genius shines as a star, solitary, and one star differs from another star in glory. The one man who by common consent of the race stands at the summit of our humanity, while He is the exemplar for all men yet remains forever distinguished from all men in the unapproachable separateness of His glorious personality. Closer than a brother, He is as remote as the Pleiads. Paradox though it be, it is in this very thing that Jesus is the preeminent example of every man. Each son of man is to be himself, as the Son of Man was Himself. He is not our model but our exemplar, not the type of an outward conformity, but the informing spirit of an indwelling life.

Over against these tendencies of which we have spoken ought to stand as a constant influence our whole organized educational system. We maintain that it is the fundamental characteristic of the best education, primary and secondary, as well as of the higher education, that it seeks to develop man rather than any special type of man, the whole man and not his instrumental faculties alone—that is fosters individuality.

In the higher education, in the school of liberal arts, this is distinctly claimed. To the youth who come we say, survey and outline the whole field; do not be the slave of your immediate environment; climb the heights before you take up your line of march; be sure that you learn everything of something, for concentration is the secret of success, but try also to learn something of everything; test your aptitudes; work in the laboratory before you become a teacher of language, in the shop before you try farming; try yourself in the debating club before you become a mining engineer; learn to use the microscope as well as the pen; do not go on a ranch till you have seen the ocean; do not plight your troth till you have met your true love. Take time to read, to study, to meditate; get into contact not only with things but with persons. Learn to know something

of the Greek and Roman spirit, the movement of art and the movement of law in history, and the great movement of salvation in the life of the race. Sit at the feet for a little of the master minds of the world; listen to the voices of the sages, the prophets, the lawgivers, the poets among men; and, not least among them all, to Him who spake as never man spake. Study the sciences and acquire the scientific method. Study also the humanities, "for the worlds He has made out of nothing, but man out of Himself." Learn something of the unity of all truth, while you are at work on grammar, and of the harmonies of the cosmos while you study logarithms or practise shorthand. So shall you discover the true affinities of your life, the true end of your being, and then you shall be free; you shall not fall under the bondage of the narrow spirit of place and time, the dogmatism of sect in science or religion, nor the rule of the materialized public opinion; and, whether or not you gain wealth or fame, you shall be yourself as God meant you to be. The great republic needs, and the world needs, not more men but more man. In some such way speaks the exponent of the liberal training. But ought not the spirit that is back of this to belong to every teacher of every grade?

It is no less an authority than our honored national commissioner of education, Dr William T. Harris, who, speaking of the elementary training, says that it should be "a school that opens to the minds of the children a vision of the far-off, shining summits of human achievement in letters and art, and in heroic service of humanity." "Elementary education," he says again, "ought to create a divine discontent with all kinds of arrested development." This can be only as there is personal knowledge of, interest in and sympathy for each pupil. Undoubtedly the desideratum in all of our public schools, and in the whole range of our educational institutions is more individual instruction. The special aptitudes of each pupil should not remain undiscovered. Skill in discerning the peculiar talent of the individual student should be the highest criterion of success, the severest proof of excellence and worth in every teacher. In every good school there is a looking over of the children on entrance to find the nearsighted, the astigmatic. Is it of less consequence

to discover the ones with mental strabismus, or moral color-blindness; or, on the positive side, to find out where there is mechanical, or artistic, or musical, or literary talent, that the pupil may be dealt with accordingly? Besides this, that impulse which is more needed than guidance, "that inflamed ardor of zest," as Dr Stanley Hall calls it, which is the best thing which education has to give, can be imparted only by the personal method. The competent, tactful, patient teacher, possessed of intuition as well as training, with every pupil of every class of every school in the state: this, rather than any change in method, is the need of our educational system. Multitudes, we believe, ever increasing multitudes of such teachers there are, and they save the situation.

And so we are brought back to the point to which we always have to come when we earnestly consider any great cause—to the old commonplace, the world's need of men, of skilled and faithful workmen—with all of our beneficent modern, scientific method, or expert and philosophic pedagogics, we all have come back to this. The personal equation can not be eliminated from the problem. I am not speaking of the male sex. I use this word in no imperfect and restricted meaning, but in that dual and complete sense which includes woman. Certainly, in the field of education we do well to keep this in mind, for there woman is nobly preeminent. We must indeed qualify Carlyle's declaration, that "the history of what man has accomplished in this world is at bottom the history of the great men who have worked here"; but we know that the individual force of certain unique personalities has been the most potent factor of change and progress through all the centuries. The principle of social regeneration through personal influence, exemplified on the broad arena of the world's life, is to be remembered in every smallest sphere of action. Exalt the individual soul, reverence personality, insist on personal responsibility, foster and trust personal influence. This is God's plan for saving society; this is the hope of American education. ...

Chancellor Doane—The program that has been prepared for the sessions of the University Convocation is now completed. I confess I have a sort of feeling that anything that I can say or anything that any one here could say would partake of the

nature of an anticlimax, because I honestly feel that we have steadily advanced from the high level with which these discussions began in Regent Gardiner's strong, vigorous paper, to the still higher point with which the discussions have closed in the admirable paper of President Hopkins. I feel rather bound to say, and I am sure I represent the feelings of my brother Regents, that in very large degree this is due to the one man whose absence we have all regretted, the secretary of our board, who in the first place prepared this admirable bill of intellectual fare and in the next place succeeded in securing the presence here not only of the distinguished people who have come from our own State, but of those who have taken the pains (for which we are most grateful to them) to come from distant places, from Colorado to say the least, and from points outside of our own State in neighboring states. And then I feel bound to express, as the mouthpiece of the Regents and as the mouthpiece of the University Convocation, our very grateful appreciation not only of the kindness and courtesy which have induced the speakers to come here, but of the great ability and interest with which they have treated the subjects assigned to them. I must confess that it is with great gratification that I have recognized what I must call the serious tone that has so largely permeated the speaking during this Convocation. It is a great pleasure to realize that the men and the women who are at work in the great and grave duty of the training and education of the young people of this country stand in the face and in the fear of God and realize the tremendous responsibility which God has put into their hands.

It is my privilege to close, as it was my privilege to open this Convocation by asking the blessing of almighty God on those who are gathered here.

Unto God's gracious mercy and promise we commit you. The Lord bless you and keep you. The Lord make His face to shine upon you and be gracious unto you. The Lord lift up His countenance upon you and give you peace, both now and forevermore. Amen.

ATTENDANTS AT

41st University Convocation of the State of New York

Under names of institutions those not specially designated are teachers and instructors.

The name of a college in curves following the name of a person is that of the institution where he was educated.

Regents of the University

1 William Crosswell Doane (Burlington) D.D. LL.D. *Chancellor*, 2 Charles E. Fitch (Williams) LL.B. M.A. L.H.D., 3 William H. Watson (Brown) M.A. M.D. LL.D., 4 Daniel Beach (Alfred, Union and Hamilton) Ph.D. LL.D., 5 T. Guilford Smith (Rensselaer Polytechnic Inst.) M.A. C.E. LL.D., 6 Albert Vander Veer M.A. Ph.D. M.D., 7 Charles R. Skinner (Hamilton) M.A. LL.D. *State Superintendent of Public Instruction*, ex officio, 8 Thomas A. Hendrick (Seton Hall) M.A. LL.D., 9 William Nottingham (Syracuse) M.A. Ph.D. LL.D., 10 Charles A. Gardiner (Hamilton and Syracuse) LL.B. M.A. Ph.D. LL.D.

University departments

Administrative Department. 11 Herbert J. Hamilton, *head clerk*; 12 Minnie L. Vanderzee, *head stenographer*; 13 Alice C. McCormack, *report clerk*; 14 Catharine Benjamin, *printing clerk*; 15 Elizabeth Eise-mann, 16 Francis X. Thompson, 17 E. Martile Comstock, 18 Katharine S. Dermott, *clerks*.

College and High School Departments. 19 Henry L. Taylor (Syracuse) M.A. Ph.D. *director's assistant*; 20 Annie T. Keyser (Cornell) *director's assistant*; 21 Everett O'Neill (Cornell) Ph.B., 22 Jane K. Weatherlow (Wellesley and Chicago) B.A., 23 Alice H. Hall (N. Y. S. Normal), 24 Sara L. Gardiner, 25 Mindo G. Vulcheff (Princeton and New York Univ.) M.A. Ph.D., 26 Charlotte L. Estes (Brockport Normal and Vassar), 27 Nita Ford Dustin (Smith) B.L., 28 Horace L. Field (Cornell) B.A., 29 Chris A. Hartnagel (Union and N. Y. S. Normal) B.S. Pd.B., 30 Lena M. Herbert (N. Y. S. Normal), 31 Helen K. Hoy (Vassar and N. Y. Univ.) B.A. LL.B., 32 George H. Quay (N. Y. S. Normal) *examiners*; 33 Edward R. Evans, 34 Loretta G. Bowen, 35 Elizabeth O. Fagan, 36 Robert Haner, 37 Harriette E. Munsell, 38 Ella H. Porter, *clerks*.

Inspection division. 39 Charles F. Wheelock (Cornell) B.S. *head inspector*; 40 Charles Newell Cobb (Syracuse) M.A., 41 Arthur G. Clement (Rochester) M.A., 42 Eugene W. Lytle (Hamilton and New York Univ.) M.A. Ph.D., 43 S. Dwight Arms (Hamilton) M.A., 44 Edward S. Frisbee (Amherst) M.A. D.D., 45 I. O. Crissy, 46 James H. Gibson, *inspectors*; 47 Frederic M. Baker, *apparatus clerk*.

Home Education Department. 48 William R. Eastman (Yale and N. Y.) *M.A. B.L.S. library inspector*; 49 William F. Yust (Central Wesleyan, Chicago and N. Y.) *M.A. B.L.S. subinspector*.

State Library. 50 Melvil Dewey (Amherst) *M.A. LL.D. director*; 51 Stephen B. Griswold (Albany Law School) *LL.B. law librarian*; 52 Florence Woodworth (N. Y.) *B.L.S. director's assistant*; 53 Peter Nelson (Union) *B.A. assistant*; 54 Agnes Flinn, 55 Oscar F. R. Treder (St Stephen's and Gen. Theol. Sem.), *clerks*.

State Museum. 56 John M. Clarke (Amherst and Marburg) *M.A. Ph.D. LL.D. state paleontologist*; 57 Ephraim Porter Felt (Boston and Cornell) *D.Sc., state entomologist*; 58 Charles M. Walker (Mass. Agric. Coll.) *B.S.* 59 Douglas B. Young, *assistants*; 60 Joseph Morje, *clerk and stenographer*; 61 George W. V. Spellacy, *page*.

INSTITUTIONS IN THE UNIVERSITY

Colleges for men

Canisius College, Buffalo. 62 F. X. Sindele.

Colgate University, Hamilton. 63 Albert Perry Brigham (Colgate and Harvard) *M.A.*

College of St Francis Xavier, New York. 64 Pres. David W. Hearn; 65 Vice Pres. P. J. O'Gorman.

College of the City of New York. 66 Pres.-elect John H. Finley (Knox and Johns Hopkins) *LL.D.*

Hobart College, Geneva. 67 Prof. Milton Haight Turk (Columbia and Leipsic) *B.A. Ph.D.*

Manhattan College, New York. 68 Brother Chrysostom (Manhattan) *M.A.*, 69 Bro. M. F. O'Reilly (Manhattan) *D.Sc.*

Niagara University, Niagara Falls. 70 Prof. George J. Eckhardt.

St Francis College, Brooklyn. 71 Brother Fidelis O.S.F. *rector*.

St John's College, Brooklyn. 72 Bro. E. L. Carey, *secretary*.

St John's College, Fordham. 73 Bro. Michael J. Mahony (Royal Irish Univ.) *B.A.*

Union University, Schenectady. 74 Pres. Andrew V. V. Raymond (Union) *D.D. LL.D.*; 75 Prof. Edward E. Hale jr (Harvard) *B.A. Ph.D.*, 76 Prof. Frank S. Hoffman (Amherst and Yale) *Ph.D.*, 77 Prof. James H. Stoller (Union and Leipsic) *Ph.D.*, 78 William Wells (Berlin) *Ph.D. LL. D.*

Colleges for women

Columbia University, Barnard College, New York. 79 Dean Laura Drake Gill (Smith) *M.A.*

Elmira College. 80 Pres. A. Cameron MacKenzie *D.D.*

Normal College of the City of New York. 81 Pres. Thomas Hunter *M.A. Ph.D. LL.D.*

Colleges for men and women

Alfred University. 82 Pres. Boothe Colwell Davis (Alfred and Yale) Ph.D. D.D., 83 Prof. Marie A. Berry (N. Y. S. Normal) Pd.B., 84 Prof. Alphens B. Kenyon (Alfred) S.M., 85 Prof. Edward M. Tomlinson (Bucknell).

Cornell University, Ithaca. 86 Prof. G. P. Bristol (Hamilton) M.A., 87 Prof. Charles De Garmo (Halle) Ph.D., 88 Prof. J. M. Hart (Princeton and Göttingen) J.U.D. L.H.D., 89 Prof. Duncan Campbell Lee (Hamilton) M.A.

Schools of theology

St Bonaventure's College, theological department, Allegany. 90 Pres. Joseph F. Butler (St Bonaventure's).

Schools of education

New York State Normal College, Albany. 91 Pres. William J. Milne (Rochester) Ph.D. LL.D.; 92 Prof. C. Stuart Gager (Syracuse, Cornell and N. Y. S. Normal) B.A. Ph.D. Pd.M., 93 Prof. George G. Groat (Syracuse and Cornell) M.A., 94 Prof. Albert N. Husted (N. Y. S. Normal) M.A. Ph.D., 95 Prof. William V. Jones (Mac Kendree Coll. and N. Y. S. Normal) Ph.D., 96 Prof. Mary A. McClelland (N. Y. S. Normal), 97 Mrs Margaret S. Mooney (N. Y. S. Normal), 98 Anna E. Pierce, 99 Prof. Leonard W. Richardson (Trinity) LL.D., 100 Prof. James Robert White (N. Y. S. Normal) M.A. Pd.B., *principal of grammar department.*

New York University, School of Pedagogy. 101 Prof. James E. Lough (Miami and Harvard) Ph.D.

Schools of medicine

New York Polyclinic Medical School and Hospital. 102 Prof. James J. Walsh (St John's, Fordham) M.D. Ph.D. LL.D.

Syracuse University, College of Medicine. 103 Francis A. Hulst (Syracuse) B.A.

Union University, Albany Medical College. 104 Willis G. Tucker (Albany Medical Coll.) M.D. *registrar.*

Academies, high schools and academic departments

Albany High School. 105 Sup't Charles W. Cole (Hamilton) M.A. Ph.D.; 106 Prin. Oscar D. Robinson (Dartmouth) Ph.D.; 107 Bryan O. Burgin (Union) B.E. M.S., 108 W. P. Burris (De Parno, Harvard and Columbia) M.A. Ph.B., 109 Eugene D. Holmes (Chicago and Ill. Coll.) M.A., 110 C. A. Horne (Harvard) B.A., 111 Ellen Sullivan (N. Y. S. Normal), 112 Mary N. Zeitler.

Altamont Union School. 113 V. P. Douw Lee, *trustee*; 114 Winfield S. Keenholts, *member board of education.*

Amityville High School. 115 Charles F. Hart, *president board of education*; 116 Prin. Charles W. Hawkins, (Wesleyan) Ph.B.

- Andes High School. 117 Prin. Montgomery C. Smith (Syracuse) Ph.D.
 Athens Union School. 118 Prin. Scott Youmans.
 Auburn High School. 119 Sup't Clinton S. Marsh (Cornell) B.A.
 Ausable Forks Union School. 120 Prin. Vivian Sadler (Plattsburg Normal).
 Bainbridge High School. 121 Prin. Fred W. Crumb (Alfred) M.A.
 Ballston Spa High School. 122 A. A. Lavery (Middlebury) M.A. *super-
 vising principal*; 123 Helena Whalen.
 Batavia High School. 124 Sup't John Kennedy.
 Bay Shore High School. 125 Prin. Charles W. Mulford (Oneonta Normal).
 Binghamton High School. 126 Prin. J. Edward Banta (Amherst) M.A.
 Bolivar High School. 127 Prin. Charles D. Hill (Cortland Normal, Hamilton and N. Y. S. Normal) B.A.
 Cambridge High School. 128 Prin. Fred J. Bohlmann (Wesleyan) B.A.
 Canajoharie High School. 129 Prin. Ernest E. Smith (Amherst) B.A.
 Canandaigua Academy. 130 Sup't and Prin. J. Carleton Norris (Rochester, Williams and Hamilton) M.A. Ph.D.
 Canastota High School. 131 Prin. George H. Ottaway (Hamilton) M.A.
 Castleton Union School. 132 Prin. Willard H. Waterbury (Cortland Normal).
 Chatham High School. 133 Prin. Charles S. Williams (Brockport Normal and Cornell) B.A.
 Cherry Valley High School. 134 Prin. Menzo Burlingame (Syracuse) Ph.B.; 135 Lora M. Clark (N. Y. S. Normal) Pd.B. *preceptress*.
 Christian Brothers Academy, Albany. 136 Brother Phylinus, *vice principal*.
 Cohocton High School. 137 Prin. George H. Guinnip (Cornell).
 Cook Academy, Montour Falls. 138 Prin. F. L. Lamson (Rochester) B.A.
 Corning Free Academy. 139 Katherine Hulst (Syracuse) B.A.
 Cornwall-on-Hudson High School. 140 Prin. Fred Carlton White (Alfred) M.A.
 Dunkirk High School. 141 Prin. George M. Wiley (Union) M.A.
 East Rockaway Union School. 142 Prin. C. D. Vosburgh (Oneonta Normal).
 Egberts High School, Cohoes. 143 Prin. William Carleton Tift (Rochester) M.A.
 Ellenville High School. 144 Prin. John W. Chandler Ph.D.
 Elmira Free Academy. 145 Prin. Howard Conant (Union) M.A.
 Fishkill Union School. 146 Prin. Edward B. Du Mond (N. Y. S. Normal).
 Fort Edward Collegiate Institute. 147 Irwin F. Mather (Iowa and Clark) M. A.
 Fort Edward High School. 148 W. S. Coleman (N. Y. S. Normal) Ph.B.

Freeport High School. 149 Sup't and Prin. Eugene F. McKinley (Cornell) B.A.

Galway Union School. 150 Prin. Ivan T. Smith.

Genesee Wesleyan Seminary, Lima. 151 Minnie E. Ryer (N. Y. S. Normal).

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Matteawan High School. 188 Prin. Earlman Fenner (Syracuse).

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University of the State of New York

Object. The object of the University as defined by law is to encourage and promote education in advance of the common elementary branches. Its field includes not only the work of secondary schools, colleges, universities, professional and technical schools, but also educational work connected with libraries, museums, study clubs, extension courses and similar agencies.

The University is a supervisory and administrative, not a teaching institution. It is a state department and at the same time a federation of more than 1000 institutions of higher and secondary education.

Government. The University is governed and all its corporate powers exercised by 19 elective Regents and by the Governor, Lieutenant Governor, Secretary of State and Superintendent of Public Instruction who are ex officio Regents. Regents are elected in the same manner as United States senators; they are unsalaried and are the only public officers in New York chosen for life.

The elective officers are a Chancellor and a Vice Chancellor, who serve without salary, and a secretary. The secretary is the executive and financial officer, is under official bonds for \$10,000, is responsible for the safe-keeping and proper use of the University seal and of the books, records and other property in charge of the Regents, and for the proper administration and discipline of its various offices and departments.

Powers and duties. Besides many other important powers and duties, the Regents have power to incorporate, and to alter or revoke the charters of universities, colleges, academies, libraries, museums, or other educational institutions; to distribute to them funds granted by the State for their use; to inspect their workings and require annual reports under oath of their presiding officers; to establish examinations as to attainments in learning and confer on successful candidates suitable certificates, diplomas and degrees, and to confer honorary degrees.

They apportion annually an academic fund of \$350,000, part for buying books and apparatus for academies and high schools, raising an equal amount for the same purpose, \$100 to each nonsectarian secondary school in good standing and the remainder on the basis of attendance. The Regents also granted in 1902 about \$23,000 for the benefit of free public libraries.

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Though primarily a New York meeting, nearly all questions discussed are of equal interest outside of the State. Its reputation as the most important higher educational meeting of the country has in the past few years drawn to it many eminent educators not residents of New York, who are most cordially welcomed and share fully in all discussions. A council of five is appointed to represent it in intervals between meetings. Its proceedings, issued annually, are of great value in all educational libraries.

University of the State of New York

UNIVERSITY INSTITUTIONS	No. SEP. 1, 1908	STUDENTS—JUNE 30, 1902	
		Men	Women
Universities and colleges of liberal arts			
For men	21	3 228	.....
“ women	5	.....	3 437
“ men and women	7	1 482	1 013
Total	33	4 710	4 450
Professional and technical schools			
Theology	16	964	17
Law	7	2 338	53
Education	3	630	1 682
Medicine	13	3 580	164
Dentistry	3	678	21
Pharmacy	5	678	35
Veterinary medicine	2	200	.....
Ophthalmology	1	1	.....
Engineering and technology	5	1 417	8
Art	3	151	1 186
Music	4	226	876
Other	21	7 692	3 121
Total	83	18 555	7 163
Academies			
Academies (incorporated)	103	4 261	4 818
Senior academic schools	3	21	88
Middle “	12	160	308
Junior “	23	521	422
Special “	3	1 250	2 517
Total	144	6 213	8 153
High schools			
High schools	376	29 388	40 048
Senior “	39	736	904
Middle “	70	1 061	1 330
Junior “	148	1 717	2 231
Special “	3	63	37
Total	636	32 965	44 550
Organizations for home education			
Institutes	2
Libraries	241
Museums	2
Total	245
Affiliated with the University			
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